H. B.
PARKE DAVIS & CO 1 GAL 130
BOSTON MEDICAL LIBRARY ASS MAY 8 1886

HEALTH

A WEEKLY JOURNAL OF

DOMESTIC AND SANITARY SCIENCE.

"Reason's whole pleasure—all the joys of sense—
Lie in three words, HEALTH, PEACE, and COMPETENCE."—*Pope.*

EDITED BY DR. ANDREW WILSON, F.R.S.E. &c.

VOL. V.—No. 123.] FRIDAY, AUGUST 14, 1885. [PRICE TWOPENCE.
Registered at G.P.O. as a Newspaper.

MEMORY AND SUCCESS.

PROF. LOISETTE
PHYSIOLOGICAL MEMORY.
Art of Never Forgetting. Using none of the "Links," "Localities," "Pegs," "Keys," or "Associations" of mnemonics.

PROF. LOISETTE
LOST MEMORIES RESTORED.
The worst made good,
And the best better.

PROF. LOISETTE
CURE OF MIND-WANDERING.
Any book learned
In one reading.

PROF. LOISETTE
SPEAKING WITHOUT NOTES.
A self-coaching method for
MEDICAL and all other students.

PROSPECTUSES POST-FREE, giving opinions of Mr. RICHARD A. PROCTOR, Dr. ANDREW WILSON, &c., and others who have studied the system. Great inducements to Correspondence Classes in all parts of the world.
Also Private Lessons by POST in "Never Forgetting" and for Cure of "Mind-Wandering."

PROFESSOR LOISETTE, 37, NEW OXFORD STREET, LONDON.

Special to Invalids.

POWNCEBY'S WINES, OLD BRANDIES, and THOROUGHLY MATURED WHISKIES
ARE ABSOLUTELY PURE,

As certified by the highest medical authorities. Small quantities at wholesale prices (to value of £2 cash). Delivery free within 100 miles.

POWNCEBY & CO.,
OXFORD ST. and STRAND, LONDON.

SHARP & CO.'S "EXOSMOTIC" DISINFECTOR.

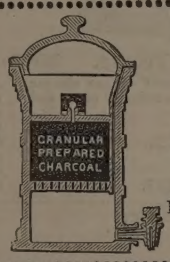
5s. EACH.

One PLACED in CLOSET-CISTERN or in Drain FLUSHING-TANK, will EFFECTUALLY PREVENT ALL NOISOME EFFLUVIA and ZYMOTIC DISEASE.
(In Ordering, kindly state size of Cistern.)
11, HOLBORN CIRCUS, LONDON, E.C.

DOULTON & CO. LAMBETH, S.E.

DOULTON'S MANGANOUS CARBON FILTER
(DR. BERNAYS'S PATENT).

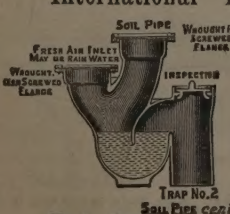
ADVANTAGES:—
Manganous Carbon is the very best of all purifying agents.
Each part of the Filter is movable to allow of perfect cleansing.



DOULTON'S Improved Granular Charcoal FILTER.

Fitted with a movable **Manganous Carbon** Block in place of Sponge, giving double action to power of filtering media.

International Health Exhibition, South Kensington, 1884.



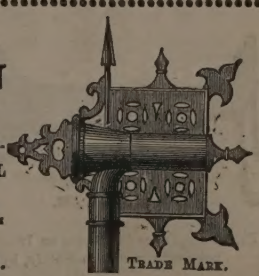
No. 1. HOUSE TRAP.

HOUSE DRAINAGE & VENTILATION

AWARDS.

Banner Ventilators and System of Drain and Sewer Ventilation,
THE GOLD MEDAL.
Banner Soil Pipe Traps and Man Hole Covers, &c.,
THREE SILVER MEDALS AND ONE BRONZE MEDAL
For further particulars of the Banner Appliances, address

BANNER, BROTHERS, & CO.
Consulting Sanitary and Ventilating Engineers.
11, BILLITER SQUARE, LONDON, E.C.



TRADE MARK.

"SUJI MUJI" POWDER.

TESTIMONIALS.

TRADE MARK.

REGISTERED.

Full Particulars on Application to the Sole Manufacturers and Inventors,
LIGHT & CO.,
USHER ROAD, OLD FORD, E.
AND AT
31, STRAND ST., LIVERPOOL.

13, Comeragh-road, West Kensington, S.W., Aug. 13, 1884.

Mrs. Ford North has not any objection to her letter being used as a testimonial, for she considers SUJI MUJI a most excellent Cleansing Powder, and especially for nursery sponges, which, after being soaked in it for a few hours, become exactly like new.

Hamlet of Ratcliff Schools, Stepney, E., Dec. 1, 1884.

Gentlemen,—I have great pleasure in bearing testimony to the wonderful efficacy of your "SUJI MUJI"; our large schoolroom used to take two of us the entire day, with 60 buckets of water, and then not look clean; now, with a little of your powder and half-a-dozen buckets of water and a mop, the room is done in four hours by one person, no heavy labour, no scrubbing brush, and in less than half-an-hour the boards are dry. I must not forget to add that, since using the powder, there is an entire absence of smell in the Infant School, and no sign of fleas anywhere.—Yours respectfully, J. WATLING, Caretaker.

Transport S.S. "Hankow," Victoria Dock, July 1st, 1884.

Your SUJI MUJI is the best thing out for scrubbing, whitening, and purifying the cabins, &c.; shall want some more before starting. J. LAMBERT, Purser.

"HEALTH," April 17, 1885.—I have found a weak solution of this powder invaluable in cleaning the hands from oil and grease, such as one is apt to encounter in the work of cleaning a tricycle or other machine. Used in stronger solution, it can be applied with advantage to cleanse and purify linen, and, employed as a paste, it will remove paint from woodwork. In the washing of closet-pans this powder is invaluable, and I should like to see it in common use for this purpose, inasmuch as the foul odour of many such receptacles arises from the accumulation of sewage matter in the basins and containers. For the necessary cleansing of cattle-trucks, and other vehicles which have to be periodically washed, this powder should prove a great boon. I am not surprised to hear that it is in constant use on board many of the steamers and ships belonging to the principal lines. No soap or other addition is required, the powder being in itself thoroughly detergent.

Compton Works, Canonbury-road, N., August 15th, 1884.

Gentlemen,—I have much pleasure in bearing testimony to the efficiency of your SUJI MUJI for cleansing. We first used it in cleaning a house, left in a very filthy state—grease, tallow, and dirt on mantel-shelves, floors, and stairs. We were surprised at the ease with which it was removed: one half-penny worth to a pail of water, we found sufficient; it seemed to dissolve the greasy dirt almost immediately. I have no hesitation in saying that it is half the cost and half the labour of ordinary soap and soda, and far more efficacious.—Faithfully yours, R. GROCOTT.

To Messrs. Light & Co. October 24th, 1884.

Messrs. Light & Co.—I have tried the SUJI MUJI, and my people tell me it answers admirably.—Yours truly, ALFRED BEST.

Queen's Hotel, St. Martin's-le-Grand.

Packed in 7, 14, 28 lb. Tins; ¼ cwt. and 1 cwt. Barrels, 30s. per cwt., forwarded to any part of the United Kingdom, Carriage paid on receipt of cash with order or reference. All cheques made payable to Light & Co., London and County Bank. 2s. 6d. sample tin, forwarded carriage paid.

We are trebly protected. Each infringement will be prosecuted.

FOR INVALIDS & PERSONS OF WEAK DIGESTION.

TRADE MARK REGISTERED LION BRAND The London Manufg Co.

ESSENCE OF BEEF.

AND OTHER SPECIALITIES.

ABSOLUTELY PURE.

"The Essence of Beef possesses the most delicate and pronounced meat flavour, and contains all the most stimulative constituents of meat. The ideal of a meat essence."
—*London Medical Record*, March 6th, 1885.

"It may be safely recommended in the many cases for which concentrated meat juice is now so generally prescribed." —*Medical Times and Gazette*, January 31st, 1885.

"In every respect of the highest quality which preserved provisions are capable of attaining. The flavour of this preparation is excellent." —*British Medical Journal*, May 23rd, 1885.

Ask for the "LION" Brand. In Glass, 3s. 6d. per bottle. In Tins, 3s. and 1s. 6d. per tin.

Of Chemists or from the Manufacturers post free.

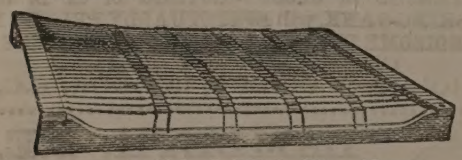
ASK FOR LION SAUCE.

THE LONDON MANUFACTURING COMPANY.
59 to 61, HATTON GARDEN LONDON, E.C.

PATRONISED BY ROYALTY, THE NOBILITY, AND THE MEDICAL PROFESSION.

THE "EXCELSIOR" PATENT SPRING MATTRESS.

AWARDS.—12 Prize Medals. 18 Certificates of Merit.



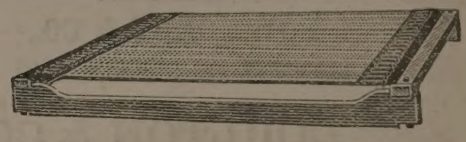
Mattresses on Polished Pitch-Pine Frame.

The principle of arrangement permits the free movement of one sleeper without inconvenience to the other, admits of complete isolation of each, and *effectually prevents depression in the centre.*

The "MATLOCK" INVALID COUCH.
The "MATLOCK" BED REST.
The "EXCELSIOR" HOSPITAL BEDS.

THE NEW PATENT WOVEN WIRE MATTRESS.

Prize Medal awarded at the Sanitary Exhibition, Dublin, Oct., 1884.



Made any size to fit Wood, Brass, or Iron Bedsteads.

This mattress is an entire novelty in its conception and arrangement, and unquestionably embraces advantages possessed by no other elastic web or woven wire mattress. Its leading peculiarity is the unique combination of a woven wire central portion with helical springs of great strength and reliable temper. The addition of suitable helical springs to a woven wire mattress *removes* the great objections made to this kind of mattress; viz., that two sleepers are liable to be thrown or moved into the centre of the bed, and that the mattress depresses or becomes hollow from constant use.

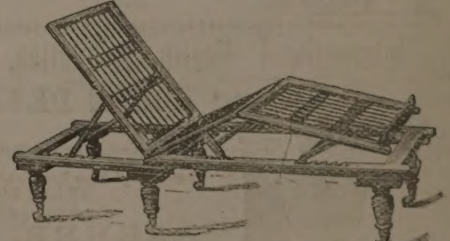
THE "EXCELSIOR" INVALID BED.

Reg. No. 12,533.

With Patent Appliance for raising an Invalid to any angle, easily, painlessly, and immediately, by one person.

RETAIL FROM
CABINETMAKERS,
UPHOLSTERERS,
FURNISHING
IRONMONGERS.

THE "EXCELSIOR" INVALID COUCH.



Reducible from 6 ft. 9 in. to 4 ft. 3 in. Also made in one length not reducible.

Illustrated Descriptive Circulars and Price Lists from

CHORLTON & DUGDALE, MANCHESTER.

HEALTH

EDITED BY

DR. ANDREW WILSON, F.R.S.E., &c.

LONDON: *FRIDAY, AUGUST* 14, 1885.

CONTENTS OF No. 123.

	PAGE
Notes by the Way. By the Editor	305
Original Essays:—	
Summer Drinks and Health. By M.D.	306
Popular Science Papers: Safety Matches—Oil Paint for Floors—Liquid Glue	308
Public Health:—	
Our Ambulance Lectures. XXI. (*Illus.*) By J. Whitson, M.D.	309
Recreation and Health:—	
Physical Training. VI. By D. A. Sargent, M.D.	311
Jottings from the Journals: Women's Dress — Explosive Physic — Common Soap—Colour Blindness.	312
Our Bookshelf; Health at Home (*Illus.*)	313
Sanitary Appliances: Antiseptic Wound-pads and Artificial Sponges —New Sanitary Inventions	315
Our Letter Box:—	
Letters to the Editor: The Proper Mode of Ventilating Hats	316
Queries and Answers:—	
General, Sanitary, and Medical.	317

Notes by the Way

BY THE EDITOR.

"Health is the foundation of all our physical happiness."—*Herder.*

A CURIOUS contribution has been made to the literature of medicine in the shape of a paper—or, rather, a "prize essay," to give the article its due—"On the Odours of the Human Body," by a Dr. Monin. The author makes what is certainly a startling but, probably, well-founded statement, namely, that the skin-secretions impart a peculiar odour to every human being. I say that this is probably a well-founded statement, and I justify my belief by recalling to mind what we have all witnessed, namely, a dog "noseing" his master's whereabouts in a crowd by the odour of the master's footprints. To many of the lower animals the world must largely present itself, I think, as a universe of smells and odours. Humanity, with its average "all-round" senses, has little idea of the world of impressions which, while inaccessible to mankind, is open to lower life. If Dr. Monin is right in his views regarding our skin-secretions, it is not surprising to find the dog recognising the odour of his master in a crowd. Conversely, the fact that the dog is able to effect this feat lends support to Dr. Monin's views.

◆ ◆ ◆

CERTAIN other interesting details are contributed by Dr. Monin's "Essay" to the literature of the senses in man. Savages are alleged to possess a power of detecting odours over and above that exhibited by civilised man. This, again, need not surprise us, seeing that the savage man is far more alert to his surroundings than is his civilised neighbour, and that his training in observation and sense-culture has been of far greater extent. It was said by Cadet de Gassicourt that a young lady could distinguish men from women by the sense of smell alone. Alexander the Great is reported to have exhaled from his skin an odour of violets. Plutarch relates this incident; and there are medical facts connected with the production of violaceous odours in the body which, at least, lend an air of feasibility to the story. Haller, the physiologist, Cujas, and Malherbe are similarly said to have possessed an odour of musk.

◆ ◆ ◆

DR. MONIN says the common skin-odour is of a sulphurous nature, which Ambrose Paré, the famous surgeon of old, declared was most marked in the red-haired and freckled. Dark-complexioned persons are said to give off an odour of prussic acid, and blondes to smell of musk. Fat persons, as might be expected, are credited with possessing an oily odour.

◆ ◆ ◆

THE effects of mental emotion, or of the nervous system, on the skin-secretions have long been notorious. One well-known physician declares that he can diagnose an insane person by the characteristic odour of the skin—a method of discovering lunacy which will certainly not commend itself for safety or accuracy to either medical men or the public. Dr. Weir Mitchell, of America, has noted that in injuries or diseases of nerves, the parts of the skin to which such nerves are supplied exhale an odour resembling that of stagnant water. Altogether, it can readily be seen that the subject is one of the most curious to which the attention can be drawn. Probably, the reflection that our comparatively limited smell-sense is by no means an unmixed disadvantage may occur as a mental commentary upon the information Dr. Monin's paper is calculated to afford.

◆ ◆ ◆

THE stomach, as all who have studied digestion know, does not digest fats, starches, or sugars. Its special duty appears to be that of acting, through the *pepsin* of its gastric juice, upon the nitrogenous or albuminous parts of the food, and of converting these parts into *peptones*, which are matters readily absorbed into the blood. Professor Stutzer, as the result of recent investigations, has come to the conclusion that of the three classes of nitrogenous substances which exist, there is one which includes matters not affected by the gastric juice. "Commercial cocoa-nut cake," said to be used by farmers as fodder for cattle, represents such an insoluble substance. These researches should cause additional attention to be paid to the subject of digestion in the stomach, and to the differences which exist between different groups of nitrogenous foods in respect of their digestive properties.

◆ ◆ ◆

DR. WILLIAM ROBINSON, of Gateshead, calls attention to a matter which is so intimately connected with the public health that I make no apologies for reproducing his letter (contributed to a medical contemporary) here:—"The widely-spread existence of swine fever at the present time, and its great similarity to typhoid in the human subject, have led me to the conclusion that the food on which the animals are fed, in the neighbourhood of large towns, may have something to do with engendering this disease. It has broken out smartly in this borough, and in the course of my official duties, whilst examining the knackers' yards, I found that the flesh of every animal, 'diseased or healthy,' brought to the yards, is boiled down into 'soup,' then put into tubs or barrels, and sold to pig-keepers to feed pigs upon. I am told it is sent all over the country.

◆ ◆ ◆

"THE meat is chiefly sent to London to feed cats and dogs. What effect soup prepared from the putrid abominations of a knacker's yard may have on the economy of a pig I am not prepared to say; but of its effect on the human economy, if such a compound were swallowed, I should say there could not be two opinions. Swine-fever has broken out at one knacker's yard here, where pigs are kept and fed on this soup, and I understand that all through the country, where knackers' yards exist, this soup is made and sold to pig-feeders. I hope that by calling the attention of my brother health-officers to this disgusting practice, through the medium of your widely-read and influential journal, public attention may also be directed to it, and steps taken to put it down."

I OBSERVE that in the current number of the *Fortnightly Review*, Dr. Morell Mackenzie returns to the subject of medical specialism, to which I alluded in a recent number of this journal. His rejoinder to Dr. Donkin should be read by all who are interested in what, I repeat, is emphatically a question for the public.

✣ ✣ ✣

DR. MACKENZIE gives one or two striking instances of somewhat extraordinary lapses in the diagnosis and discovery of disease on the part of leading physicians. A medical celebrity consulted in a case of severe throat-ulceration, urged on the patient the necessity of taking food. On the patient inquiring how, having regard to the pain of swallowing, this desirable object was to be accomplished, the great physician "took refuge in general principles." The sequel is instructive. Losing faith in the lecture on swallowing and its physiology to which he had been treated, the patient repaired to a specialist in throat diseases. By local applications to the throat, a form of treatment which the physician had totally ignored, the patient was speedily cured. I fancy the specialist scores heavily here.

✣ ✣ ✣

ANOTHER equally-instructive case, quoted by Dr. Mackenzie, is that of a patient who had been treated "by most of the luminaries of the College of Physicians for organic disease of the brain." In a moment of "happy inspiration" the hopeless patient went to an oculist. He was cured at once by being fitted with a proper pair of spectacles! Again, I think, the specialist comes to the front as the man in whom the public are entitled to place confidence when the need arises for a careful opinion in a grave (or mistaken) case.

✣ ✣ ✣

I FIND a gratifying proof of the spread of sanitary teachings in directions of unlikely, but at the same time important, kind in the fact that starch is now being manufactured on principles which must certainly tend to ensure its thorough hygienic excellence. When we reflect that starch is made to enter into the most intimate combination with our clothing, and that its freedom from all injurious matters is therefore a necessity of health, we may realise the advantage which accrues from the employment of a pure article. A sample of the "A 1 Lion Brand Rice Starch," which has been subjected to a careful examination, shows us that a sanitary article of this kind is now placed within the reach of all classes of the community. The starch in question is free from excess of gluten—a fault which is too frequently found represented in ordinary makes of this substance. Hence it is less liable to undergo injurious fermentation, and to encourage the development of germ-life.

✣ ✣ ✣

ADD to this that the "Lion Brand" starch is subjected to antiseptic treatment in the course of its manufacture, and it may, I think, be fairly claimed for this product that it represents the acme and perfection of sanitary excellence. I have further ascertained that it is a highly economical starch, a fact which should prove a passport to its use in every household. It is, besides, employed exclusively in laundries of the highest reputation, and, I may add that, for the treatment of clothes which have been in any way exposed to infection, this starch is well adapted as supplementing the use of disinfectants, and, therefore, is a useful and excellent article of domestic safety and economy.

Original Essays

"Life is not to live, but to be well."—*Martial.*

SUMMER DRINKS AND HEALTH.

By M.D.

THE heat of summer naturally suggests the topic of cooling drinks as a subject upon which a little advice may be highly appropriate and useful. There is no need that we should dive at all deeply into physiology to understand why the thirst of summer becomes a natural phase of our seasonal life and variation. We saw last week how and why the skin's work in summer is, if not excessive, at least largely increased, over its winter duties. Water is excreted or given off, as a constituent of the sweat, in great quantity—that is to say, water has been used up in the body's work, and has been re-formed as part of the body's waste. The frame has been deprived of a large part of the water, without which, as every tyro in physiology knows, the continuance of life becomes impossible. As water thus plays an important part in all the processes of the body, the demand for a supply of this material—which, in the strictest sense, is a "food"—becomes of very crying nature in the summer season. The minute bloodvessels of the skin are charged with blood in warm weather, or after exercise; the secretion of the skin becomes proportionally augmented, as that of the kidneys becomes decreased; and so arises the necessity for cooling drinks (of which water is the basis), by way of replenishing the water-waste of the frame, and of lowering the temperature or heat of the body.

The practice of taking "cooling drinks" may be justified perhaps, as a natural means of counteracting the increased heat of the body. As we have seen, the better explanation of the desire for such fluids really consists in the recognition of the fact that the body demands water, and that such drinks constitute simply the reply to this demand. There are, however, certain plain physiological rules which should guide us in our fondness for partaking of "coolers" in warm weather.

In the first place, it is both erroneous in theory and dangerous in practice to partake of iced or cold drinks when the body is extremely heated. It is theoretically erroneous, because the taking of such liquids produces essentially the same result as does a cold bath on the skin-surface. Contraction of the bloodvessels follows, in response to the nervous stimulation, it is true, and the temperature falls. But the fall is succeeded by "reaction," and the effect of the cold drink of summer—as most persons have experienced—is simply to cause a more excessive flow of perspiration than before. This method of treating the body, again, is dangerous in practice, because the taking a large draught of ice-cold fluid is apt to produce a depression which may be too severe, and which may not be followed by reaction at all. In such a case, a severe nervous "shock" is the result. This acts upon heart and bloodvessels, which are practically pulled up on their haunches by the sudden cold; and fatal paralysis of the heart has been frequently observed as a result of the incautious use of cold drinks when the body has been overheated.

The point which requires attention, then, is that of avoiding large draughts of cold fluids when the body is warm. It is, however, an equally certain fact that if fluids which are cool or cold in nature be cautiously sipped, instead of being taken off at a draught, a cooling action is exerted, and dangerous results prevented. A special stimulant action on heart and bloodvessels appears to be excited by the "sipping" of fluids, whereas a depressing action follows the sudden draught of a large quantity of

fluid, and especially of a cold liquid. The body will bear with, and respond to, the cooling process when it is gradually carried out, as it rebels when the cooling is attempted to be carried out roughly and suddenly.

Nor must we overlook another important fact, and one which has an important bearing on cycling, for example, and all other pursuits entailing great exertion and consequent increase of skin-action. This latter fact consists in the observation that tepid liquids, sipped slowly, will often be found to be quite as effective in producing cooling of the body as drinks which are actually cold. The experiences of many persons show, for instance, that tepid tea or coffee is infinitely more effective than absolutely cold water in lowering the temperature and in producing a refreshing coolness. Tepid water itself is preferred by many athletes, and is recommended by trainers as in every way preferable to the cold fluid. If a dash of oatmeal be added to the tepid water, its properties as a "cooler" are augmented by those it gains as a nutritive and restorative.

We find certain wise counsels on this subject in that useful little volume entitled "Training in Theory and Practice," by Mr. Maclaren. He is very earnest in his advice that in training—which, of course, is only the ordinary "exercise" of which we are speaking systematically carried out—a man should "drink nothing but water." He adds that the "practice of drinking beer, sometimes new and sometimes stale, is, I consider, most injurious." Speaking again of that extreme thirst which is the chief cause of errors in quenching it, Mr. Maclaren says: "In cases of extreme thirst the best plan is first to cleanse the mouth and throat, either by rinsing it with a mouthful of water as a gargle, or by chewing a morsel of bread or biscuit, and spitting it out when lubricated, and then to swallow slowly a few mouthfuls of the liquid; again to repeat the rinsing and the chewing, for the mouth and throat having been the place where the thirst was most severely felt, the salivary secretions at this time are unfit to be conveyed into the stomach; again to repeat the mouthful-by-mouthful mode of swallowing until thirst has become a little allayed. By this means the water will be conveyed into the blood almost instantly, leaving no quantity to remain in the stomach; after a little space the luxury of a hearty *drink* may be freely taken."

It will be observed that Mr. Maclaren is most exact in advising us strongly against the tendency to, and danger of, drinking *at once* when heated and warm, by way of alleviating thirst. He concludes:—"I have myself followed this rule under the fullest extremes of heat and thirst, meeting the simple demand for the fluid (by the sensation of thirst) by quenching it at the first opportunity, adopting only the *natural* precaution of restoring it gradually,—approximating the restoration somewhat to the manner of extraction, and always with increased comfort, health, and bodily power, not only during special exercises which I was laboriously practising, but when traversing on foot, in midsummer, some of the hottest parts of Europe, when, as the natives complimentarily have it, 'everything was asleep or in the shade but dogs and Englishmen.'"

Another remark of this high authority on all that pertains to training and exercise, is so apt that it may well be quoted as an additional inducement to consider well the cautions and advices regarding the taking of large quantities of fluids when heated. Mr. Maclaren says:—"It is important not to drink too fast, or in too great quantities in times of extreme thirst; just as it is important not to eat too fast, or in too great quantity in times of extreme hunger. It is advisable when thirst is extreme to refrain from drinking suddenly or in large quantity, not because the stomach is heated by exercise—for the heat of the stomach and of all the internal organs in health is always nearly the same—but because at such times liquid should not be taken into the stomach faster than its absorbent vessels can take it up and convey it to the blood. And it is desirable equally to avoid the accumulation of water in the stomach, or its too sudden and copious introduction into the circulatory channels. (Mr. Maclaren might have added here, to avoid "shock," especially if the liquids are cold or icy in character). For this reason, any property in the liquid imbibed which proves an inducement to drink slowly, and at the same time stimulates the glands of the mouth and throat, where the *sensation* of thirst, when it has been acutely felt, often lingers long after the actual wants of the body have been supplied, is a great advantage." And in a foot-note, it is added: "For this purpose, there is nothing better than lemonade."

In another paper we shall return to the subject of "cooling drinks" themselves, and to that of baths and bathing as related to summer weather. It may, therefore, suffice for the present if we add a single sentence or two regarding the use of *alcohol* in summer drinks.

We are strictly within the bounds of all medical experience when we say that the less alcohol is consumed or, in any sense, regarded as a necessity, or even as a luxury, by those who require cooling drinks, the better for all concerned. If alcohol is not a necessity of healthy working life, it is assuredly not a necessity for exercise. One may be very far from declaring that a draught of beer, taken under otherwise safe conditions by a healthy person in summer, will necessarily be productive of harm; but, contrariwise, no advantage can be gained by taking beer or any other stimulant, which cannot be obtained from non-alcoholic beverages. And there is another point of high importance when alcohol is regarded in the light of its relations to exercise; namely, that as, after alcohol, we have action and reaction, its use, during exercise especially, is not only apt, but certain to cause that over-fatigue which is very far removed indeed from the healthy "tiredness" which ensues upon natural exertion.

Let our readers rest well assured of this fact, that the use of alcohol never yet enabled any one to take enjoyable and healthy exercise in comfort or with satisfaction. On the other hand, cases of physical breakdown are most common in those who use alcohol. It need never be forgotten that if there are any circumstances in which there exists a temptation to excess, it is certainly during exercise with its physical demands in which such temptation will occur. Therefore, we say, "Eschew alcohol during exercise, and limit its use always—if it be required at all—to those occasions when it is found necessary as an aid to digestion and an essential for dietetic comfort."

THIS age of steam has in many ways stimulated the production of live-stock, and the relative proportion of animal to vegetable food has of late years been rapidly growing. This is in part due to the fact that the art of stock-breeding has greatly advanced, and in part to the modern facilities for the preservation and transportation of animals or their products. While this is, as a whole, doubtless a benefit to mankind, it has at the same time enormously increased certain dangers to public health. Old dangers have increased, and new ones been introduced that our fathers knew nothing of. Moreover, modern scientific investigation has traced to our domestic animals certain diseases of man the origin of which has heretofore been a mystery; and we now know that the public health is related to that of our domestic animals in more ways than the public yet appreciate.

Popular Science Papers

"Blessings on Science! When the Earth seemed old,
When Faith grew doting, and our reason cold,
'Twas she discovered that the world was young,
And taught a language to its lisping tongue."
—*Charles Mackay.*

SAFETY MATCHES AND RED PHOSPHORUS.

About the year 1850, a gentleman entered the laboratory of King's College, London, and drew from his waistcoat pocket a fragment of a rough-looking red solid, and, placing it in the hands of Professor Miller, asked him if he knew what it was. It was handed round among those present, but no one had the slightest idea as to its nature, when, to the astonishment of every one, the gentleman said, "It is phosphorus, amorphous phosphorus, discovered by me, Herr Schrötter, of Vienna." Up to this time, and indeed for some years later, persons engaged in the manufacture of lucifers were subject to a terrible disease, known in the London hospitals as "the jaw disease," necrosis of the lower jaw induced by constantly inhaling the fumes of phosphorus acid escaping from the phosphorus of the paste with which the matches were tipped.

This red, or amorphous phosphorus, gave off no fumes, had no smell, was not poisonous, and the matches made with it were not luminous in the dark, as was the case with matches made from ordinary phosphorus; they did not fire on a warm mantelpiece, did not contract damp, and would keep for any length of time; and, above all—and what was, perhaps, their most valuable quality—the manufacture of them put an end to the "jaw disease."

But here was a difficulty. When the red phosphorus is brought into contact with potassic chlorate, a slight touch is sufficient to produce an explosion, in which the red phosphorus reassumes its ordinary condition. Many attempts were made to form a paste, and many accidents and some deaths occurred in consequence. Prizes and rewards were offered by manufacturers and others for a safe paste, or for some means of using the red instead of the ordinary phosphorus, but without success, so that the patent for the manufacture of red phosphorus which was secured by Mr. Albright, of Birmingham, in 1851, threatened to be of little value. At length the happy idea occurred to a Swedish manufacturer not to attempt to make a paste at all with the red phosphorus, but to make the consumer bring the essential ingredients together in the act of igniting the match. Hence the origin of the Swedish "Tändstickors," which, with their now numerous imitations and constantly-increasing improvements, "light only on the box."

OIL PAINT FOR FLOORS.

For the painting of floors with oil paint, we should only select such as contain earthy colouring substances, and no lead, as all paints containing the latter wear off too easily.

A floor that is covered with oil paint, and which is comparatively easily rubbed off, can safely be considered to contain lead.

Lead is generally added on account of its superior density, body, and also being much more easily applied than most other substances.

Even varnish that has been prepared by the use of litharge is objectionable on account of being too readily worn off.

Two coats of paint are usually employed, and care should be observed so as not to apply the second before the first is fully dry.

If it is desired that the floor should present a varnish-like lustre, the following may be employed, whereby the paint becomes even much more durable:—

Dissolve two parts of shellac in eight parts of alcohol of about 80 per cent., and add to it one-quarter of a part of camphor.

When the whole has been completely dissolved, it can be filtered or strained through a cloth in order to separate the suspended impurities. With this lac the floor is painted over once or twice, as may be required. By the application of the lac the paint adheres much better, and is not so easily worn as though it were directly exposed; and when the lac has been partially removed, all that is necessary is to renew the simple application of the varnish.

LIQUID GLUE.

With any desired quantity of glue, use ordinary whiskey instead of water. Break the glue in small fragments and introduce these in a suitable glass vessel, and pour the whiskey over them. Cork tightly and set aside for three or four days, when it will be ready for use, without the necessity of applying heat. Thus prepared, the mixture will keep unaltered for years, and will remain permanently liquid, except in very cold weather, when it may be found necessary to place the bottle in warm water for a little time before using. The vessel in which it is kept must, of course, be kept always tightly corked, to prevent the volatilising of the solvent.

A French formula for a liquid glue directs that a solution of eight ounces of glue be made in a half-pint of water, in the usual way, by placing it in a vessel of water until solution is effected. To the solution it is directed that two-and-a-half ounces of strong aqua-fortis (nitric acid) be added, stirring all the while. Effervescence will take place with the evolution of orange nitrous fumes. When all the acid has been added, the liquid is allowed to cool. It should be kept in a well-stoppered bottle, and will remain permanently liquid. It will neither gelatinise nor putrefy, and is said to make a very serviceable cement for various domestic uses, such as repairing cabinet-work, china-ware, &c.

Another formula directs that a jar or bottle be filled with glue broken into small fragments, and the same covered with acetic acid. It should then be placed in a vessel of hot water for several hours until all the glue is dissolved.

Manna Cake.—The "Manna Cake" preparation, to the merits of which allusion was made in a recent number of Health, is manufactured by Messrs. Bennette & Co., of Leicester. We are pleased to make this statement in correction of our previous notice of this excellent and safe aperient medicine, which is specially adapted for nursery and invalids' use.

Scott's Midlothian Oat-Flour.—Messrs. A. & R. Scott, of Kingston, Glasgow, and Finsbury-square, London, have prepared a singularly pure and nutritious "Oat-flour," which bids fair to take high rank among the food products which are specially adapted for infants and invalids, and for the use of dyspeptics in particular, whose digestion is weak, and whose stomachs refuse to assimilate foods of ordinary kind.—Ed. Health.—[Advt.]

To Inventors.—Inventions protected by Royal Letters Patent at lowest rates. Provisional protection for nine months, £2. For all information concerning Patents address Messrs. Lulman & Co., Patent Agents, 8, Essex-street, Strand, London, W.C.—[Advt.]

Public Health

"Health is the first Wealth."—*Emerson.*

OUR AMBULANCE LECTURES:

What to do in Emergencies and Accidents before the Doctor comes.

By Various Writers.

XXI.—THE TREATMENT OF FRACTURES OR BROKEN BONES—(*continued*).

By James Whitson, M.D.

(Assistant Surgeon, Glasgow Royal Infirmary.)

In dealing with fractures it cannot be too strongly reiterated —even at the expense of repetition—that movement of a broken limb is attended with exquisite pain, and there ought, on this account, to be as little manipulation of the injured parts as possible. It should also never be forgotten that the adoption of early remedial measures is of the utmost consequence, and the more promptly a lesion of this kind is seen to the better for the patient—hence the

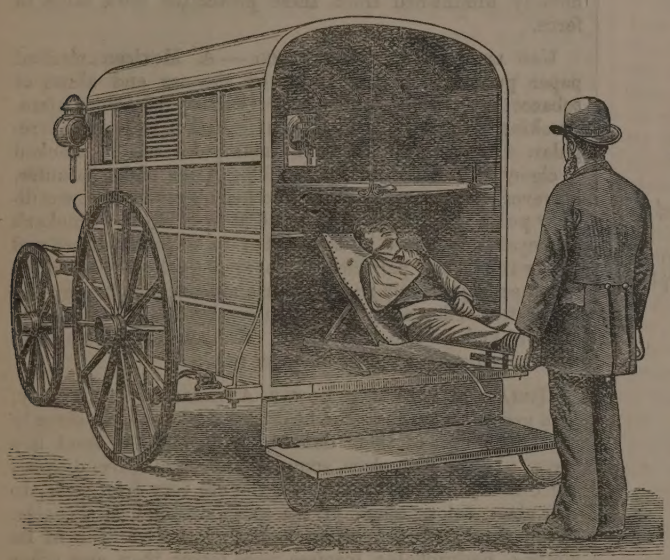


Fig. 7.—Waggon of Coatbridge Ambulance Association.

value of training the members of Ambulance classes to utilise material which happens to be within their reach. Suffering is thus reduced, and delay, with its aggravating complications, almost entirely avoided.

But the duties of the ambulance pupil do not end with the putting on of splints, and the securing of these in their correct places by means of bandages, for we have yet to convey the wounded man home or see him removed to the nearest hospital, and a correct method of transportation is of the first importance in the class of cases now under consideration. With a fracture of the lower extremity, it is essential that the patient should be borne in such a way that he can lie fully extended on a flat surface. To drive any one suffering from a broken leg in a cab—unless, indeed, he be of small stature, and can enter as well as remain in a horizontal position—is a mode of procedure which is much to be deprecated, and the getting of the unfortunate individual in and out of a vehicle of this kind is too often productive of excruciating torture. In the event of a properly-equipped ambulance waggon (see Figs. 7, 8, and 9) not being within call, some measure must be devised to carry the injured person with as little discomfort as possible. Provided the distance is short, patients can be easily transported by means of bearers; but if much ground

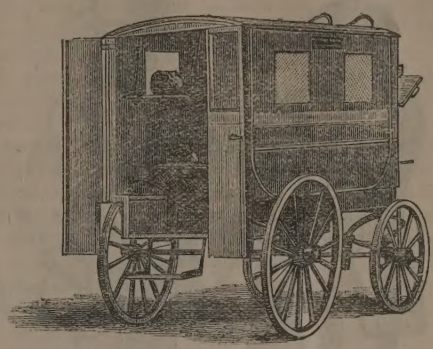


Fig. 8.—Waggon used in Newcastle-on-Tyne. (Built by Messrs. Atkinson & Philipson.)

Fig. 9.—Stretcher used in Newcastle-on-Tyne.

Fig. 10.—Four-handed Seat.

requires to be traversed, the plan soon becomes laborious and troublesome, owing to the frequent changes which it involves. Fig. 10 shows the method adopted in forming

the four-handed seat. Fig. 11 illustrates the two-handed seat, and Fig. 12 gives a good idea of the last-mentioned arrangement carried into practice.

If a stretcher can be obtained, it is the best appliance to

Fig. 11.—Two-handed Seat.

work with, but in many situations shutters, ladders, deal boards or gates require to be substituted.

An excellent temporary stretcher can be made up with a pair of laundry poles, or broom-handles, and a couple of

Fig. 12.—Patient being borne on two-handed seat.

great-coats. At a recent Ambulance Demonstration held in Glasgow, a very efficient litter was constructed of four waistcoats and a similar number of walking-sticks; while a lad who was supposed to have broken his leg was quickly removed on a lamplighter's ladder.

In conclusion it need scarcely be added that in lifting the patient from the stretcher to the bed on which he is finally to repose the bearers must be careful to act in unison, in order to avoid movement of the affected limb.

Prior to 1850, there were no effectual laws in England to regulate the number of hours of work per day for children and women; consequently they were in many places obliged to work from fifteen to sixteen hours daily. Certain laws had been passed, but they were so loosely drawn up that they were easily evaded. After 1850, practical laws were passed at frequent intervals, to protect the people in various kinds of industry, and ten hours and a half were made the extreme limit of work. A. Ollendorff has studied the mortality statistics of England for a series of years before and after 1850, and he finds that the mortality of women and children in manufacturing towns has notably diminished since these protective laws came in force.

Use and Abuse of Tobacco.—A Mexican medical paper publishes a monograph on the use and abuse of tobacco, by Dr. F. Valencia y Castilla, of Guadalajara. Smoking quickens the pulse, but causes it to become irregular. An observer, whose normal pulse was 80, smoked a cigar, and found his pulse 92. After eight minutes, however, it was again 80. Another observer, whose ordinary pulse is 84, finds it to be 96 after a cigar. Smoker's dyspepsia is believed by the author to be partly direct and partly reflex, the particles of tobacco swallowed with the saliva acting directly on the gastric mucous membrane; the indirect or reflex action being shown by the increase in the salivary and gastric secretions. The author thinks death from consumption is rare amongst smokers.

Human Health and Lower Animals.—We may say, in a general way, that the health of the people is directly related to that of their domestic animals in at least five ways. In the first place, some of their contagious diseases are directly transmissible to us, and are very fatal; and to this class belong some of the most dreaded of diseases. For example: in proportion to the relative number of its victims, hydrophobia inspires more terror than any other disease known to us, and greater exertions are made against it than against any other one disease which slays so small a proportion of the population. This, in man, comes only from animals. In the same category we may place anthrax and glanders, both very fatal. The foot-and-mouth disease of cattle, transmitted to man through the milk of diseased cows, is less fatal, perhaps, but still too troublesome, and, unfortunately, too common to ignore, and others of less note are well known. The mortality in any community, due directly to this class of diseases, is relatively small; yet there is a positive danger, against which we have as yet inadequate protection, and where we especially need intelligent official action founded on proper veterinary authority.

Scott's Midlothian Oat-Flour.—There is no preparation which can be assimilated with greater facility than such a flour as this. Those who suffer from indigestion might substitute for their ordinary breakfast materials this flour, prepared according to the recipe given by Messrs. Scott and printed on the tins.—Ed. Health.—[Advt.]

An Important Health Tract.—A Short Catechism on the Cholera, by Dr. Thomas J. Hutchinson, reprinted from Health, and adapted for distribution by Health Societies, City Missionaries, and all interested in the diffusion of health-knowledge among the masses. Ten copies for 9d.; 20 for 1s. 3d.; 50 for 2s. 6d.; and 100 for 4s., post-free, to be obtained from the Publisher, Health Office, 74, Great Queen-street, W.C.—[Advt.]

Recreation and Health

"Health is the vital principle of bliss,
And Exercise of health."—*Thomson.*

PHYSICAL TRAINING.

By D. A. Sargent, M.D.

Professor of Physical Training and Director of the Hemenway Gymnasium, Harvard University.

CONCLUDING PAPER.

Though the gymnasium affords the best means of physical training from the educational standpoint it is not complete in itself, and should frequently be supplemented by other exercises. The monotony of its mechanical movements should often be relieved by recreative sports and games. But here you enter the realm of special exercises, and they should be used judiciously. Did the time permit we should be pleased to show the effect of various exercises on the same individual and of the same exercises on different individuals. Horseback riding, bicycling, skating, &c., are powerful specifics and furnish the best exercise possible for certain conditions. Many of the so-called physical exercises, like military drill, owe their value in education to the moral training and discipline they exact, and not to their effect upon the development of the body. Not a few of the exercises supposed to be recreative, really give more employment to the brain and central nervous system than they do to the muscles.

On this ground objections may well be made against the extreme development of competitive sports and highly artistic games in our schools and colleges. The intense rivalry, social pressure, and popular clamour which is behind these exercises, prompts the young athlete to train more vigorously than he naturally would, and the expectation of victory or defeat, with the accompanying excitement, keeps the subject constantly before him. If he tries to do conscientious work in his studies he makes a double draft upon his system, and is liable to break down during his training. At the same time the value of competitive sports must be recognised. They are splendid aids to discipline, and tide the young over a dangerous period. They develop patience, perseverance, courage, presence of mind, and many other qualities of great value in the struggle of life. They are too important an adjunct in education to be allowed to lose their influence by being carried to excess. Efforts should be made to regulate and control athletic exercises before a reaction sets in against them. It should be the duty of the medical supervisor to acquaint himself with the nature and character of all exercises and games. He should also know their specific value as a means of developing the different parts of the body, and he should be able to judge of their physiological effects upon different constitutions. He should be thoroughly posted on dietetics, bathing, sleep, clothing, and other health topics, and should be able to give discriminating advice as to the use of these important agents.

Armed with this knowledge, and the data obtained from the physical examinations, a course of training can be prescribed which will not only tend to make the weak strong, and the strong well, but a course which will actually attack the incipient forms of diseases and fortify the system against the evil tendencies of our civilisation.

Some of the more conservative of my hearers may say:—"Such an elaborate system has much to commend it in theory, but it is thoroughly impracticable." To meet this objection perhaps a brief review of what it really is doing will not be out of place. This system was introduced into Harvard College four years ago upon the completion of the Hemenway Gymnasium. Up to that time the old gymnasium was used almost exclusively by the members of the various athletic organisations. At the present time the new gymnasium is used by more than 80 per cent. of all the members of the College. The attendance is voluntary, and no inducements are held out by the authorities, except the physical examinations, and the benefit of personal supervision and advice.* But this system is not confined to Harvard, it has already been introduced in a modified form at Haverford College, Lehigh University, Boston University, and at several theological seminaries, preparatory schools, private schools, and academies. John Hopkins University, Cornell University, and Amherst and Yale Colleges are making preparations for it. Wellesley and Smith Colleges, devoted to the education of women exclusively, have this system, and Brynmawr, a newly-founded college for women, in Philadelphia, is having a gymnasium built expressly for it. Many of the city gymnasiums, including the Union, of Boston, with a membership of nearly a thousand, have entered thoroughly upon the good work. The great athletic associations of the country, including New York, San Francisco, St. Louis, and Montreal are adopting the new methods. The Montreal Club has risen to the dignity of the occasion, and appointed a medical director. Sanatory gymnasiums, founded on this system, for women and children, have been opened in several cities in the East, and efforts are making to carry the work into various hospitals and asylums. In fact, from every direction there is an increasing demand for just such a system as we have been advocating. The difficulty is to find well-trained, enthusiastic, and intelligent exponents of it, for the field of preventive medicine is not a lucrative one.

"The object of the American Public Health Association is the advancement of sanitary science and the promotion of organisations and measures for the practical application of public hygiene."

Whatever is thought to be detrimental to the physical condition of the community, or likely to invite disease, is thoroughly discussed, and measures are usually adopted for having the evil removed. That much good has been accomplished by this great sanitary movement no one can deny,

* The result of this work is making itself manifest in many ways, and we shall hope to publish a detailed account of it at no distant date.

Galvanism *v.* Nervous Exhaustion.—Pulvermacher's world-famed Galvanic Belts for the cure of nervous diseases have received testimonials from three Physicians to her Majesty the Queen, and many eminent members of the Royal College of Physicians, London. Dr. James Wilson, of Liverpool, M.D. and M.R.C.S., says:—"I have used Mr. Pulvermacher's Belts now for many years in cases of amenorrhœa and intestinal obstructions, and I know of no remedy in the present day so efficacious as Pulvermacher's Belts in the treatment of these cases that so frequently come under the notice of the physician, and in which medicine seems so powerless. I should like to see Mr. Pulvermacher more warmly supported by the profession, as I feel sure that many of my medical brethren are unaware of the powerful adjunct we have in the treatment of many diseases by the use of the 'Pulvermacher' Belts."—Messrs. J. L. Pulvermacher & Co., the eminent Medical Galvanists, who have had 36 years' experience in the treatment of Nervous Diseases, give advice daily at their Galvanic Establishment, 194, Regent-street, W., free of charge, and patients who are unable to call should write describing their symptoms, when medical pamphlet and advice will be sent *post free*. Pulvermacher's "Treatise on Nervous Exhaustion, Physical Debility, and Loss of Vital Energy," with testimonials received from medical men and private patients all over the country, sent post free on application to J. L. Pulvermacher's Galvanic Establishment, 194, Regent-street, London, W.

but in spite of every effort to improve the conditions of the public health, thousands die annually of zymotic (or infectious) disorders in communities where no immediate cause can be found, while thousands live on in seeming defiance of disease and death, amidst the filthiest surroundings. One person contracts a fever, another diphtheria, and a third continues in good health after being exposed to the same atmospheric conditions, and subjected so the same deleterious influences.

These are cases which frequently occur to the practising physician, and point to causes beyond the realm of external observation.

We must often look to the condition of the individual and study his physical structure, functional peculiarities, inheritance and personal history, if we would get at the real cause of disease. It is the weak part transmitted or acquired which is first to invite disorder. We know of no better way of finding this vulnerable part than by physical examinations, taken in connection with such a history as we have described. If all the health associations could be induced to use their influence, as some are doing, in carrying on the examinations in schools, factories, asylums, hospitals, penitentiaries, among seafaring men, railroad men, professional men, and through all the diverse trades and industries, we feel convinced, from our own experience, that the data would be invaluable. If, in connection with these personal examinations, small circulars could be issued, giving a few words of practical advice on the care of the body, adapted to the peculiar wants of different constitutions and circumstances—an interest would soon be awakened that would greatly improve the physical conditions of the masses and found a basis for a higher moral and intellectual life.

Antiseptic Mouth-Wash.—Magitot (*Union Méd.*) suggests the following:—℞. Borate of sodium, fifteen grains; thymol, eight grains; distilled water, one pint. The mouth is to be washed several times daily, to correct fetor of the breath. The solution also acts as a local pain-killer in cases of decayed teeth.

Where our Salt Comes From.—Our English salt-supply is chiefly derived from the Cheshire and Worcestershire salt-regions, which are of triassic age. Many of the places at which the salt is mined have names ending in *wich*, such as Northwich, Middlewich, Nantwich, Droitwich, Netherwich, and Shirleywich. This termination *wich* is itself curiously significant, as Mr. Isaac Taylor has shown, of the necessary connection between salt and the sea. The earliest known way of producing salt was, of course, in shallow pans on the sea-shore, at the bottom of a shoal bay, called in Norse and early English a wick or wich; and the material so produced is still known in trade as bay-salt. By-and-by, when people came to discover the inland brine pits and salt mines, they transferred to them the familiar name, a wich; and the places where the salt was manufactured came to be known as wych-houses. Droitwich, for example, was originally such a wich, where the droits or dues on salt were paid at the time when William the Conqueror's commissioners drew up their great survey for Domesday Book. But the good easy-going mediæval people who gave these quaint names to the inland wiches had probably no idea that they were really and truly dried-up bays, and that the salt they mined from their pits was genuine ancient bay-salt, the deposit of an old inland sea, evaporated by slow degrees a countless number of ages since, exactly as the Dead Sea and the Great Salt Lake are getting evaporated in our own time.

Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, little care."—*Sir Philip Sidney.*

Women's Dress.—The *Queen* publishes some useful remarks by Lady John Manners on the subject of the dress of women and their personal adornment generally. The article in question is characterised by good sense and pure taste, and will be found, we hope, to have dealt an effective blow at the absurd habit of over-dressing, which mars in a considerable degree the bearing of all classes at the present day. Neatness and cleanliness, as the aims of good taste in dress rather than display, may be said to form the text of this timely paper. The essential connection between personal cleanliness and health is also well brought out. It is satisfactory to note that some stress is laid upon the fact that those who value their appearance should make much of the freshness common in youth, but often spoiled by the usages of an artificial life. A habit of bathing regularly is enjoined, and late hours and the atmosphere of heated rooms deservedly and unreservedly condemned. Another important point touched on in this article is the weight of dress, which we agree with the author ought to allow of the wearer doing the greatest amount of work with the least possible fatigue. There is also a stroke at various kinds of "dress-improvers" and other unnatural but fashionable deformities. We may close these remarks with the words of a quotation from Mr. Ruskin, used by her ladyship, that what is required is "decency and wholesomeness of dress; thoroughly good in substance, fitted for daily work, becoming to rank in life, and worn with order and dignity."—*Lancet.*

◆ ◆ ◆

Explosive Physic.—A list has just been published, in the *Union Pharmaceutique*, of accidents which have recently occurred during the preparation or carriage of explosive substances used in medicine. At Strassburg, a chemist's assistant was changing some lycopodium-powder from one bottle to another; the particles that escaped mixed with the air, a jet of gas was burning, and a slight explosion occurred. The frightened assistant dropped the jar containing the lycopodium, the room was at once filled with the powder, and a violent explosion took place. Chlorate and permanganate of potash are also dangerous. M. Meyet has stated that a tooth-powder composed of chlorate of potash and cachou has been known to explode in the mouth of a person engaged in brushing his teeth. A druggist who dried some hypophosphite of lime in a receptacle containing sand was killed by its explosion. Oxalate and citrate of lime are also explosive, but only at a high temperature. Pills of permanganate of potash have been known to explode spontaneously. A mixture of perchloride of iron and glycerine exploded in the pocket of a patient who carried it. An eminent chemist at Paris prepared ozone with powders composed of equal parts of peroxide of manganese, permanganate of potassium, and pulverised oxalic acid. He took every recognised precaution, and the mixture was corked up in a bottle; a few minutes afterwards, an explosion took place, and the bottle was reduced to atoms.—*British Medical Journal.*

◆ ◆ ◆

Common Soap.—Manufacturers doing a large business have kettles holding several thousand pounds. The ingre-

Sanitary Inspections.—Fee for Survey and Report, in London 2 Guineas. Estimate given and Improvement Works carried out when required.—The Sanitary Engineering Co., 115, Victoria-street, Westminster, S.W.—[Advt.]

dients of ordinary family soap are, primarily, grease or tallow, rosin, soda-ash, and salt. They are boiled for a couple of days, and then allowed to cool for about three days. The soap is then pumped from near the bottom of the kettle—this is because the soap in the bottom cools more quickly than at the top—and into a crutcher, nearly like a milk churn, where it is mixed thoroughly. In this crutcher most of the adulteration commonly used in soap is introduced. Among the materials put into the soap are marble dust, glucose, sal soda, which is not used so much to cheapen the soap as to improve its appearance, flour, and starch. From the crutcher the soap is run into boxes called frames, and is cut into bars when it becomes hard. It takes about two weeks from the time the material is put in the kettle to the time the bars are placed in boxes ready for the market. One-third of the weight of a bar of soap when boxed is water. This will dry out in course of time, leaving a three-pound bar weighing only two pounds. Rosin is used in almost all soap, but is absolutely without use except to make the cost less to the manufacturers. This is also true of all the ingredients in soap except the fatty substance and the ash. Yet the wastefulness of the persons who do washing makes it an absolute saving to the consumer to have three-quarters of it adulteration.—*Laundry Gazette.*

* * *

Colour-Blindness.—Colour-blindness, like other defects of vision, affects people in different degrees of intensity, and, like myopia, or short sight, it is frequently hereditary. It often becomes more pronounced in after-life, or when the near point of vision begins to recede. Among the more highly-educated of all nationalities the average number of colour-blind is 4 per cent., an average in excess of that of all other classes. A man may have a good eye for form and outline, and yet be partially or wholly colour-blind. To select an instance from among many is difficult, but one impresses me more than the rest—that of Wyatt, the sculptor, who at the outset of his career was known as a remarkably good draughtsman. He naturally took to painting, but, as his pictures were observed to present curious incongruities of colour, that involved him in grievous difficulties, he with much reluctance was obliged to abandon the brush for the chisel. He was altogether unable to comprehend the nature of his defect—indeed, refused to believe that he was colour-blind. So of men who have attained to eminence in the world of letters, and whose writings unmistakably betray evidences of a meagre colour vocabulary. A striking example of this occurred in the person of Angus B. Reach. He was unable to recognise a difference in colour between the leaf, the flower, and the fruit of plants and trees. His want of perception of colour was wholly unknown to and unrecognised by himself, until we sat together at the table of a Paris restaurant. He, wishing to finish his letter to the *Chronicle* newspaper, requested the waiter to bring him some ink. As it often happens, under similar circumstances, the ink was brought in a wineglass. Reach became absorbed in his subject, while I, seated opposite to him, observed him alternately dipping his pen into his claret glass and into the ink glass. I frequently checked him, but presently to my surprise he took up the ink glass and was about to drink, when I remonstrated, and he then said he could see no difference between the colour of the ink and the wine. On subsequently testing him I discovered that he was completely colour-blind. Homer certainly laboured under a physical defect of vision, and this fully explains the limited use of the terms he employed to express his sense of colour, and to which Mr. Gladstone has drawn attention.—*Journal of Science.*

Our Bookshelf

"Reading maketh a full man."—*Bacon.*

HEALTH AT HOME.

Our Dwellings: Healthy and Unhealthy. (Addressed to Girls attending the Leeds Board Schools.) By CATHERINE M. BUCKTON. (London: Longmans & Co. 1885.)

MRS. BUCKTON is so well known for her philanthropic efforts to diffuse a knowledge of health-science, more especially among the girls of Board Schools, that a new book from her pen is certain to be welcomed in all quarters in which an appreciation of sanitary science is found. The present volume, she tells us in her preface, is only a continuation of efforts begun in 1873 (when the authoress was elected to the Leeds School Board), undertaken by way of furthering the study of domestic economy by girls. There is, happily, no need to say a single word in praise of this

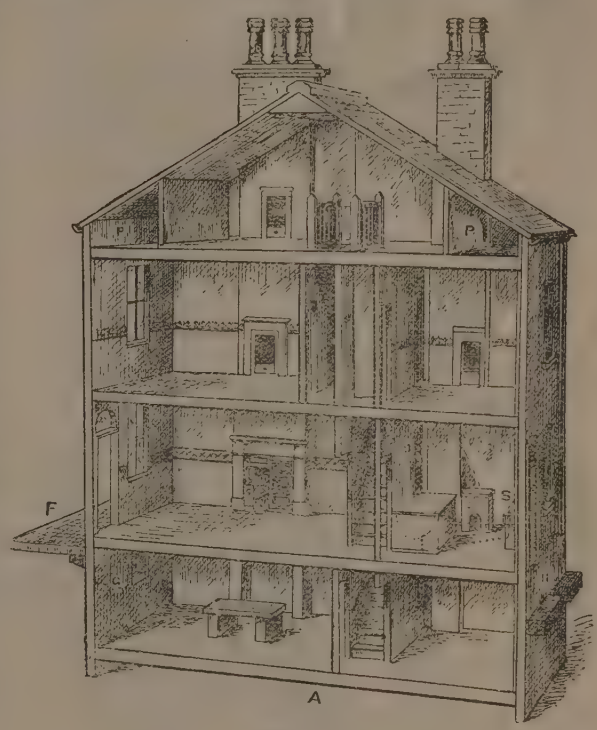


Fig. 1.

benevolent and thoroughly practical scheme. The self-evident fact remains paramount, that girls of all classes of society can receive at school no more valuable instruction than that which is to fit them for intelligently understanding the duties of domestic service, or for assuming the responsibility of household cares and superintendence. The servant ignorant of the effects of allowing grease to escape day by day into drains, and the mistress who knows nothing of house-construction or of the simplest details of domestic sanitation, are alike responsible for needless health-dangers, for preventible illness, and for waste of time, money, and temper on the part of the households they serve or superintend.

Again, the high import of such training as Mrs. Buckton would give to girls of the working classes may, perchance, be the more readily appreciated when we reflect upon the

advantage a girl who has been duly taught the laws of health possesses over one ignorant of such teaching, when she enters upon the possession of a home of her own as a professed helpmate for life to the bread-winner of the home. Mrs. Buckton tells us there were 1,250,285 women employed in England in 1881 in domestic service; while 1,200,000 additional women were then "domestic servants in their own houses." It is clear that a large part of the

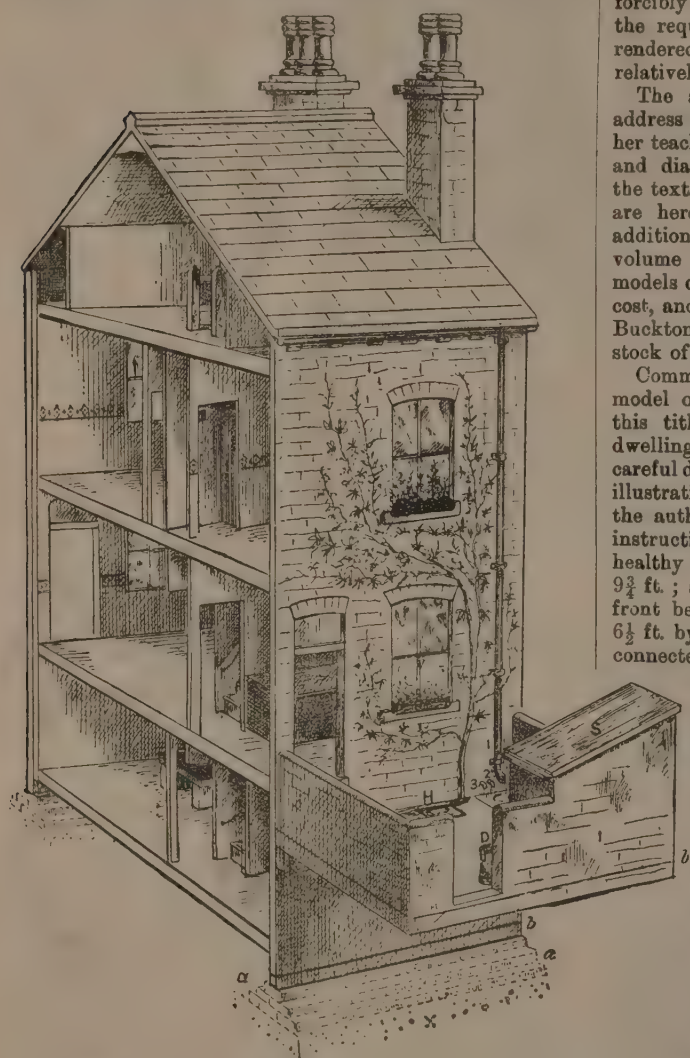


Fig. 2.

home comfort—which is, of course, based on health—of the masses must depend on the careful regulation of the home in a sanitary sense, as well as in the knowledge of the satisfactory use of foods and of cooking. The care of children, to mention but one other branch of domestic economy, is necessarily included in such instruction as Mrs. Buckton gave to the Leeds girls. On every ground, therefore, it seems advisable that girls should receive at school a modicum of that instruction which deals with human life and surroundings in their relations to health. The day, indeed, should not be far distant, when every school shall possess its class of health, and when our young people will be sent out into the world knowing the great principles on which healthy living can alone be conducted and supervised.

The volume before us may be welcomed for the reason that it is a notable contribution to sanitary teaching of a kind usually regarded as lying completely outside the ordinary education, and we may add comprehension, of girls and boys. Yet, we are certain that no one will rise from the perusal of Mrs. Buckton's pages without being forcibly impressed with the idea that information regarding the requirements for a healthy home may not only be rendered plain, but deeply interesting to school children of relatively tender years.

The authoress writes in the lecture-form, a mode of address calculated to inspire confidence in the popularity of her teachings. Her discourses were illustrated by models and diagrams, these being reproduced as illustrations in the text. Several of the figures from Mrs. Buckton's book are here given, and the clearness of these cuts adds an additional charm to the lucidity which characterises the volume at large. In an "appendix," we learn that the models of houses can be procured in Leeds at moderate cost, and lecturers on hygiene may therefore find in Mrs. Buckton's book a useful guide to the enlargement of their stock of illustrations.

Commencing her prelections with the description of the model of "a healthy working-man's dwelling" (should not this title, by the way, have been rendered "a healthy dwelling for a working man"?), Mrs. Buckton passes in careful detail through the entire fabric of the domicile. The illustration (Fig. 1) will show the nature of the models the authoress used to make clear the chief points in her instruction. Here we are presented with a side view of a healthy cottage dwelling, having a front cellar 12½ ft. by 9¾ ft.; a sitting-room, 12½ ft. by 9¾ ft., height 10 ft.; a front bedroom, 10¾ ft. by 9¾ ft.; and a back bedroom, 6½ ft. by 9¾ ft., with other accommodation. Every detail connected with the structure of this model house is fully explained in the text, as also is the interesting illustration (Fig. 2) representing a view of "the back-yard as it might be decorated with a Virginia creeper and window boxes. Here the portable dust-bin (D) makes its appearance, the closet (S), the coal-slide and its grating (H), the open end of the rain-pipe (I), sink-pipe (2), bath-pipe (3), damp-proof course (*b*), footings (*a*), and concrete (×).

Equally interesting becomes the illustration (Fig. 3) in which part of a block of twenty-four "back-to-back" houses is depicted. Here A represents one house and B the adjoining one, C being the dividing-wall separating the tenements. The inevitable "house-drain" is shown passing down the centre of the block, and entering the sewer (S). The unhealthy character of such houses is duly enforced by the authoress in the course of her teachings. Absence of air, the closets placed in the centre of the block, the drains passing under the houses, the want of a back-yard and its accommodations, are all described as grave faults. We can readily imagine how instruction of this forcible kind, supplemented by such illustration, should have been relished by the audiences to which it was addressed. The great and lasting good of such teaching arises from the fact that every house becomes an illustration of one or other phase of the dwellings question, and the every-day life of Mrs. Buckton's auditors must therefore supply to them abundant warning of the evils against which she has undertaken such an eloquent and forcible crusade.

Throughout the entire volume, the same practical spirit

is reflected. Dangerous closets and traps are duly described; the methods of effective and cheap house-decoration are enlarged upon; the nature of drains is explained, and all other items likely to prove of practical service to the pupil and learner in sanitary work are noted and amplified. The authoress does not neglect to point the moral of her teaching by examples of fatal epidemics produced by impure water and allied causes; although, perchance, exception will be taken to her statement (p. 74),

Fig. 3.

that the cholera-germ of Dr. Koch is to be regarded as the proved and indubitable cause of that ailment. Mrs. Buckton is doubtless well aware that grave doubts have been cast on the accuracy of Koch's views, and that the entire matter of cholera causation is still *sub judice*.

We regard Mrs. Buckton's new volume, therefore, as an important contribution to the popular literature of health-science. It marks, in its way, an epoch in the history of education, since there is certainly great hope for the future of sanitary progress when the young are being taught health in the schools, and when they are being provided with the priceless knowledge of how to be well, and to keep well, as part and parcel of the work of ordinary education.

Catalonia and Algeria possess the cork oak in great quantity, and it is successfully cultivated in Corsica, in the French departments of Var, Lot et Garonne, and elsewhere. It grows about 200 years, and attains some 30 to 40 feet in height as an average, though trees as high as 65 feet are met with here and there.

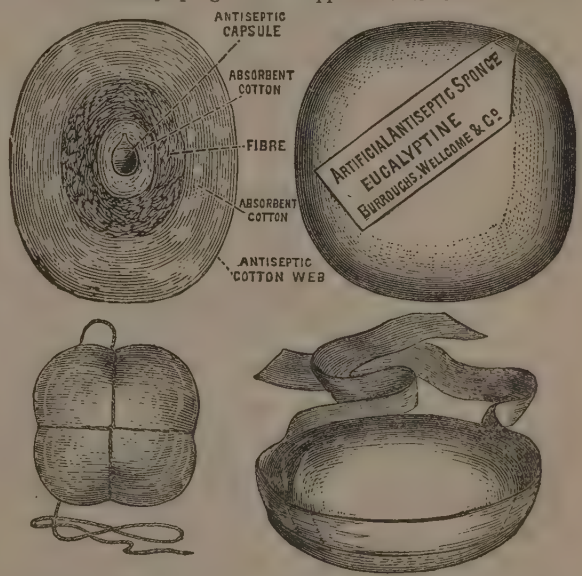
The manner in which acetate of soda is used to develop heat for the new foot-warmers in railway-carriages is as follows:—The foot-warmers are filled with crystals of acetate of soda, and are then placed in a stove, and heated to 212 deg. F. At this temperature the salt dissolves completely in its own water of crystallisation, and on cooling the super-saturation point is reached. If, then, the foot-warmer is shaken, a considerable amount of heat is developed by the sudden crystallisation of the salt. It is said that this salt does not corrode the metal of the foot-warmers.

For Hire.—One of Pulvermacher's Special Five-Guinea Batteries. Three Shillings and Sixpence per week. Delta, 290, High-street, Lincoln.

Sanitary Appliances, Etc.

ANTISEPTIC WOUND-PADS AND ARTIFICIAL SPONGES.

Messrs. Burroughs, Wellcome, & Co. send us samples of their recently-invented artificial sponges, wound-pads, and tampons. These appliances constitute highly useful, handy, and ingenious methods of applying antiseptic dressings to any surfaces requiring such treatment. Thus the wound-pad is a simple appliance which should find a place in every ambulance box, and might well be carried in the knapsack of every holiday-maker and cyclist. It consists of a pad of concentric layers of fine absorbent cotton and springy fibres, attached to a bandage; securely fixed in the centre of the pad is a capsule containing the antiseptic eucalyptine or other germ-killing fluid. When the pad is to be applied to a wound, the capsule in the centre is broken by a sharp squeeze with the finger and thumb, and its contents at once flow out, and, impregnating the pad, convert the latter into a thorough antiseptic appliance. The artificial antiseptic sponges of this firm are specially prepared masses of pure absorbent cotton and springy fibres arranged in concentric layers, which serve every purpose to which an ordinary sponge can be applied in medicine. The well-



known objections of surgeons to the use of sponges arise from the difficulty of cleansing them, and the attendant risks which are incurred in the way of introducing germs into wounds through the employment of even well-cleaned sponges. With the artificial sponges at hand all such risks are avoided, inasmuch as the pads are simply burned after use, being quite inexpensive. It strikes us that the employment of these sponges in cases of fevers, in which there arises the necessity for wiping away the secretions of mouth and nose, would be attended with a diminution of the risks of infection.

The tampons also made by Messrs. Borroughs, Wellcome, & Co. appear to be highly useful in the treatment of internal ailments where there exists a necessity for the introduction to diseased surfaces of antiseptic measures. Each tampon, like the sponge, is charged with a central capsule of antiseptic fluid which is liberated by the breakage of the capsule. The illustrations render clear the construction of these excellent aids to the healing of wounds and allied conditions.

NEW SANITARY INVENTIONS.

1,671. Locking-Cock for Beer (*J. S. Rhodes* and *C. J. Clark*, Birmingham).—The cock is so constructed that it can be secured in a closed position. For this purpose the plug has in its side a pin turning in a slot or groove in the casing. The bolt of a small lock in the side prevents the plug being turned by any unauthorised person. In some instances, the bolt of the lock may pass into a hole in the plug for the same purpose.

2,842. Carpet Cleaner (*T. Alderman*, Surrey).—The carpets are trailed over wire netting stretched on frames, which may be in sections, and used either separately or conjointly. For large carpets this trailing is effected by windlasses mounted above the frames, and worked either by hand or power.

3,113. Flues for Fire-places (*J. Woolven* and *W. Eade*, both in Brighton).—The flues are carried down one side, underneath the grate, and up the other side into the chimney. In fire-places for heating purposes the flue has a bell-mouthed entrance, with a hinged door in its roof, which acts as a register, and is opened by being attached to a chain wound on a barrel by a handle on the face of the grate through the toothed gearing. A damper is fitted in the side, and a soot door in the bottom of the flue.

3,920. Potato-Planters (*J. Mellor*, Cheshire).—Consists of a in potato-planter combination with a plough. In the rear of the machine is a box or holder for the seed potatoes in the mould-boards. A continuous band or chain with scoops travels in the guide-frame, and takes forward the seed-potatoes one by one to the sloping shoots, by which they are deposited in the furrows made in the soil by the coulters. An oscillating shoot-guide actuated by an eccentric and lever causes the potatoes to enter the shoots alternately. The endless band is made to travel by a pulley in the front of the machine, which receives its motion from the carrying-wheels.

4,578. Artificial Whalebone for Corsets (*J. Royle*, Manchester).—Strips of buffalo hide are soaked in cold water till sufficiently pliable, cut to the size required, and dried in cold air. The strips are then rubbed smooth, rubbed well on both faces with palm oil, dried, hammered or pressed, and dyed. The strips may finally be polished.

5,108. Sun-blinds (*B. Boothrod & J. Doherty*, Southport).—One or more square openings are made in an ordinary roller-blind, and hoods are fitted to them as follows:—On the edge of each opening are stiffening laths to prevent puckering, and in the outer edge of hood is another lath, which is held extended by strips. These strips may be made in any suitable manner, and, when extended, resist a fair wind. When there is more than one hood only the upper one has the stays; the others are kept extended by cords.

Our Letter : Box

"Conference [maketh] a ready man."—*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including specimens of Sanitary Appliances, &c.), to be addressed to "The Editor of Health," 74-76, *Great Queen-street, London, W.C. Those intended for the Publishing Office to be sent to* "The Publisher," *at the same address.*

LETTERS TO THE EDITOR.

THE PROPER MODE OF VENTILATING HATS.

Sir,—At this sultry season this subject is of great importance, especially to that numerous class of the community who perspire freely on the head. The plan of inserting a single ventilator in the *crown* of the hat is a delusion, and can be of little service. The proper way is to insert a ventilator at each side, about two inches below the crown, and thus promote a free current of air. To those persons who perspire copiously at the forehead the writer suggests that a piece of *oil-skin* be inserted between the fabric of the hat and the lining at the part covering the forehead, so as to prevent injury to the hat arising from the effects of perspiration, which no cleaning can remove.—I am, &c. Aliquis.

QUERIES AND ANSWERS.

GENERAL.

Singe.—1. There is a chimpanzee ("Sally"), at present in the London Zoo. The method of walking may be studied there. The drawing you send is accurate enough. 2. See Huxley's "Physiology."

A. Burt.—1. You are mixing up *iris* and *pupil*. The latter is the opening in the middle of the iris which regulates, by its expansion or contraction, the amount of light admitted into the eye. 2. Light falling on an eye causes the opposite pupil to contract.

J. F. T.—1. You mean sodium chloride. 2. Urea. 3. About two grammes.

Allen Tait.—1. The valves in the veins are pocket-like, and allow blood to flow in one way only—towards the heart. 2. Most physiologists believe the heart exercises a suction power during its dilatation. 3. "Systole" is contraction; "Diastole" is dilatation.

Inkoramus.—See reply to "John Rae" in Health No. 122.

SANITARY.

T. B. B.—No doubt there was lack of care in finishing the fittings; no such accident could have occurred with good materials and careful workmanship. You certainly have a claim against the plumber, and we advise you fully to enforce it.

An Inspector.—No doubt, whatever, exists as to your power under the Act. Why should you be in any difficulty?

Salvo.—Use a vaporiser, and employ "Sanitas" fluid in it. For the flies, try "Myocom" fly-gum.

T. Talbot.—The closet-trapping must be defective, and the flushing is imperfectly carried out. Replace the closet by a "wash out" pattern. Twyford's "Unitas" should suit you.

MEDICAL.

Tommy.—There is nothing wrong with you, and you are only a foolish lad whose mind has been excited by perusing quack statements. Do you not know that the basis of the quacks' success is the fact that they first alarm their dupes and cause them to believe that only by coming to the quack establishment can they be cured? If the quack attempts to extort money from you, put his letters in the fire; if he threatens you, inform him (if he needs the information) that an attempt to extort money by threats is a serious offence, and that you are prepared to prosecute him therefor. You will then hear no more of or from him.

B. S. S.—See advice to "Demos" in Health No. 121. Ponder over what is said to "Tommy" above regarding quacks and their ways.

Elsie.—There is no fear of such a result. A good surgeon will remove the wen with little or no pain by locally producing insensibility of the skin.

A Scot.—In your case we should counsel you to visit a physician and ascertain precisely from him the nature of your ailment. In this way you would be informed regarding the dietary, &c., most suitable for your case. Rest will be necessary as a matter of course; but yours is a case in which the necessity for knowing exactly what is the matter is paramount. We can send you address of a reliable London physician, if desired, on receipt of stamped addressed envelope.

Manxman.—You might use a Pulvermacher's Belt or a Harness's Medical Battery Belt. Both are genuine electrical appliances, and may do much good in your case. As regards the other treatment, take the Fellows' Syrup for three or four weeks, and be guided as regards the Cascara Cordial by the effect it has upon your digestive system. It will probably cure the constipation in a few days; thereafter take half the dose, and then give it up.

Tobolsk.—See and follow advice to "Demos" in Health No. 121.

Hawthorne.—Let the patient take twenty drops Cascara Cordial (Parke, Davis, & Co.'s) once or twice daily in water, an hour before food; diet to be light, and rest to be taken after meals. To take aperients, as has been done, is a vital mistake. The Cascara Cordial will probably effect a cure, and thereafter let stewed fruits, whole-meal bread, &c., form part of the food. Avoid tea and coffee, and write again if not cured.

Des Ongles.—The indications which the nails afford of diseased character are too technical to be satisfactorily detailed here. The indications you name specifically are both believed to be frequently (we do not say invariably) associated with a gouty tendancy.

Exhausted.—Merely the result of a little relaxation due to want of tone of the mucous membrane. We advise you to wash the parts twice daily with cold water and Iodoform Soap, and to use an injection composed of a teaspoonful of Quebascho Extract added to a tumbler of hot water. Allow this to cool, and use twice daily. Internally, take fifteen drops *Fer Bravais* in water, thrice daily, an hour before your food. Let us hear the result of this treatment.

Infirmus.—You need not be alarmed, and there is certainly no need for you to become hypochondriac. Cases like yours are common, and are merely the result of loss of tone from overwork, mental anxiety, or like causes. We advise you, firstly, to take complete rest and change of air—the east coast by the sea would suit your case—abstain from all exercise of the kind named for a month or two, use a cold sponge bath each morning, sleep on a hard mattress, and take a teaspoonful of Fellows' Syrup of the Hypophosphites thrice daily in a wineglass of water an hour before meals; substitute for this on each alternate week Mariani's Wine of Coca. Let us hear how you are after a trial of this advice.

T. Smith.—Read and follow advice to "Demos" in Health No. 121. Take the tonic and follow out the other directions for a month or so. There is nothing materially wrong with you. You ask advice; we give you such: it rests with yourself whether or not you follow it—only don't trouble us by writing again to ask such a silly question as that "if we think you will get well?" You must use the means to get well.

Aged 79.—We do not approve of the preparation you indicate. A medicine warranted to cure all diseases, from "cancerous tumour" to "peritonitis" and "epilepsy," may well be set down as a thorough example of a quack remedy. Try half-a-teaspoonful of Fellows' Syrup of the Hypophosphites in a wineglass of water, thrice daily, an hour before your food.

F. McL.—You have only been needlessly alarmed by some quack literature. Simply read and follow faithfully the advice given to "Demos" in Health No. 121, and you will get quite well. Bear in mind that the habit you name must be completely relinquished.

J. T. B.—Let your food be nutritious, clothe warmly, and avoid chills and overwork. After your meals, a teaspoonful of Carnrick's Peptonised Cod-Oil and Milk, to which fifteen drops *Fer Bravais* have been added, will do you good. If not bettered, write again.

Clio.—1. Soft brushing: washing once a week with Hamamelis Soap and tepid water, and rubbing in Rowland's Macassar Oil each morning. 2. Scott's Midlothian Oat Flour, or Grant's Scotch Oat Flour. 3. Consult a herbal manual. 4. Keep the hair short, and treat it as above recommended.

J. W.—Your digestion is at the root of your troubles. We recommend you to look to that item in the first instance. Let your food, for a time, consist largely of strong soups (Brand's or Mason's, or the "Lion" Beef Essences, &c., should be used), milk, stewed fruits, light puddings, &c. Eat little solid food until your stomach regains its tone, and take ten drops *Fer Bravais* in water after food thrice daily. See that you rest after your meals. Wash your face (and head twice weekly) with Iodoform Soap and tepid water. If not bettered, write again.

Grateful.—Wash the irritated parts night and morning with Iodoform Soap and tepid water: thereafter dust Woolley's Sanitary Rose Powder on the parts. Avoid scatching, and look to the state of your clothes, so as to ensure that no irritation exists. Internally, for a few days, take twenty drops Cascara Cordial (Parke, Davis, & Co.'s) in water, an hour before breakfast.

Malheureux.—Read and follow advice given to "Apokruptomai" in Health No. 121. You need be under no apprehension. Your general tone is simply lowered, and the treatment recommended will set you right. If a smoker, give up the habit, or practice it in strict moderation only.

J. A. A.—Try the effect of a holiday at Margate, Ramsgate, or on the east coast. This will brace you up. In addition, follow the advice indicated to "Malheureux" above.

C. H. Blackmore.—Wash the feet twice or thrice daily in tepid water with Iodoform Soap; thereafter dust Woolley's Sanitary Rose Powder inside your stockings, which should be frequently changed; and, internally, take fifteen drops *Fer Bravais* in water, an hour before food, thrice daily.

Circum.—1. The practice is, at the best, dangerous. Exercise should never be used so that it is liable to incur risks of any kind, and this, as we understand your letter, is exactly what you own your sport does include. 2. No person troubled with hernia should take to exercise of any kind without first consulting a surgeon. Certain cases of hernia are compatible with cycling, but all should be first submitted for a surgeon's decision.

Maida Vale.—You do not give us sufficient particulars to enable us to advise you satisfactorily. Is there no cause for the symptoms of which you complain? Failing any actual cause known to you, take hot hip-baths frequently at bedtime, and see that you avoid constipation. One aloes and iron pill taken each alternate night, and fifteen drops *Fer Bravais* taken in water an hour before your food, will probably relieve you.

Rowland.—If you are foolish enough to pay such a sum of money for the opinion of a physician who advertises his skill, as if his methods of treatment were superior to that of his brethren, and with whose skill you say you are wretchedly disappointed, you cannot certainly recover the money. The articles on "Asthma" should be followed out in regard to the remedies they recommend. Special care in diet appears to us the sheet anchor of treatment in a case such as that you name, and the fact that there is digestive disturbance lends support to this view. Light food, rest after meals especially, and the use of the Maori Cigarettes (see our advertising pages), may relieve or cure the patient. If not bettered, write again, but study the articles referred to for valuable hints regarding treatment.

A. R. G.—Are you not aware that what you complain of is a perfectly usual occurrence in healthy persons, and is not a sign of disease but of health? The sooner you learn this fact, and act upon it, the better. If you are out of sorts, and thus rendered weak, read and follow advice given to "Demos" in Health No. 121. The tonic there named will brace you up, while the other items should be attended to as well.

A Sad Woman.—The recital you send us (and for which we thank you) arouses our deep sympathy. We can see you are placed in a position in which the absence of physical conditions (such as are healthy) is calculated, on a sensitive nature, to produce very severe mental effects, and it is here that any professional opinion would sympathise in the fullest possible manner with you. As things are we suppose you are aware that legally you may claim complete freedom—any lawyer will tell you so. All we can suggest is the intervention of a friendly doctor. There must be some strange "twist" of disposition on the other side, at whose door all the blame lies—not at yours. If we can be of further service, pray command us.

Anxious.—Rest after your meals, and see to the ventilation of your office. The symptoms you experience are such as arise from bad air. Look also to your food, and let your diet be light. Avoid constipation, if such a condition exists, by taking the Cascara Cordial as ordered to "Hawthorne" in the present number of Health. This medicine will act on the liver, and in all probability relieve your more distressing symptoms. If not bettered, write again.

Petite Santé.—We should certainly advise the patient to begin treatment by taking ten or fifteen drops Cascara Cordial (Parke, Davis, & Co.) once or twice daily, an hour before food, in water. Let the effect of this upon the constipation be watched, and let the patient eat freely of stewed fruits, whole meal bread, &c., and take Victoria Water as an ordinary table-water. In our opinion, the whole of the troubles arise from defective assimilation due to constipation and allied digestive disorders.

A Sufferer (Leith).—Try the effect of taking twenty grains bromide of potash in a wineglass of water, once or twice daily (morning and night), by way of experiment, and see if the craving will thereby be lessened. If not bettered, write again.

Banjo.—See review of book on "Gout and Food," in the last number of Health. A perusal of this work (which is a cheap one) might aid you respecting diet, &c. Wrap the affected joint in cotton-wool or flannel, and lay over it a piece of flannel dipped in a lotion of twenty drops of laudanum added to a wineglass of warm water. Ten drops colchicum-wine and a piece of bicarbonate of soda (the size of a pea) may be given in a glass of water every six hours. Drink Victoria water.

P. R. A.—We are glad to hear the opinion is so far favourable regarding the affection of the side. 1. Wash with tepid water and Pears' Soap, and take fifteen drops *Fer Bravais* in water after your food as a tonic, of which you appear to stand greatly in need. 2. Nothing will prevent the recurrence of polypi—save, indeed, the surety that the former polypus has been thoroughly removed. You night try a weak injection of Quebascho Extract—a teaspoonful to a large tumbler of warm water—and used, when cold, as a nasal douche. Rest and freedom from mental worry should be secured in your case.

J. H. C.—You are extremely foolish to be alarmed. What you complain of is due to a trifling irritation which ordinary care in diet, and freedom from constipation will free you. Your letter indicates that you must be very ignorant of ordinary physiology, since you seem to expect that under the excitement (which you own you seek and find), you should feel no effects. Our advice to you is to refrain from such excitement, and the effects you complain of will cease.

Hopeful.—The patient should make a prolonged stay by the sea, and after meals (thrice daily) should take a dessertspoonful of

Carnrick's Peptonised Cod-Oil and Milk, to which fifteen drops *Fer Bravais* are to be added. There is constitutional weakness in such a case which sea air and this treatment will cure. The nose might be douched with the Quebascho Extract as ordered to "P. R. A." above.

A. F. K.—The case you name is not one for which we can tender you advice here, as there are obviously complications which a physician, seeing and watching the patient, could alone successfully treat. You might endeavour to obtain the advice of a reliable consulting physician regarding the case. We may only remark that, as regards the dietary, potatoes and cheese are certainly unsuitable.

J. JOHNSTON.—Your mental overwork and worry are at the root of your troubles. We can simply advise you to avoid mental strain, to pay no attention to your supposed troubles, which are really of no moment, and only derive their importance from the halo of fear and anxiety with which you invest them. Take your cold baths each morning as usual, avoid constipation by the use of Cascara Cordial, as ordered to "Hawthorne" in the present number of HEALTH, and thereafter, when this medicine has toned your digestive system, eat stewed fruits, whole meal bread, &c. Avoid fluids and suppers late at night, and sleep in a well ventilated room. Take open-air exercise in moderation. So long, however, as you brood over what is really of no moment whatever, so long will you remain nervous and ill.

APPLEDORE.—Try the Quebascho Extract (Brown & Co., of Farringdon-road, London, E.C.), a remedy which has attained a high celebrity in such cases. Apply a lotion made by adding one teaspoonful of the Quebascho to a tumbler of hot water (see directions in full in advertisement in HEALTH No. 121, page 288). In addition, avoid constipation, give up tea, coffee, &c., and eat stewed fruits, whole-meal bread, &c. Victoria Water may be used as a table-water likely to be of benefit in your case.

DOVE. [Your letter, erroneously addressed to the publishers, should have been addressed to the "Editor" of HEALTH. Please attend to this rule in future.]—1. Apply pure vaseline to the lids. 2. Depends entirely upon the constitution of the patient, and the nature of the disease which destroyed the hairs. 3. Yes; one part Friar's Balsam to ten or twelve parts rose-water.

NIL DESPERANDUM.—You in one breath say you have improved—in the next you say you have not benefited from the treatment recommended—which assertion are we to believe? Our opinion of your case is that you are worrying yourself over a very small matter. Take a course of hot baths to cause the skin to act, and take fifteen drops *Fer Bravais* in water thrice daily an hour before your meals. If you are not cured, consult a specialist in skin diseases. We can send you address of such, if desired, on receipt of stamped addressed envelope.

M. U. G.—You should be aware that naturally there is a difference between the two in respect of length; and you may be regarding as unnatural what is probably a perfectly normal feature. We do not think you suffer from any ailment at all; but as you appear to be distressed in mind, we can only advise you to see a

[*Continued on page* 320.

THE NEW FOOD.

WILSON'S BABY BISCUITS.

INFANTS' FOOD.

WILSON'S BABY BISCUITS.

INVALIDS' FOOD.

WILSON'S BABY BISCUITS.

IN SHILLING TINS.

Of Chemists, &c.

Sole Consignee, DAVID CHALLEN, London, N.

The Great Health Renovator!

WILKINSON'S DANDELION WINE.

The best tonic.
Surpasses all bitters.
Invaluable for sluggish livers.
. . "I find it an excellent appetiser." . . .
. . "I shall strongly recommend it." . . .
H. C. BARTLETT, Ph.D., F.C.S.

Sold retail at 1s. 1½d. and 2s. per bottle. Wholesale only of

R. WILKINSON & CO.

137, HIGH STREET, BOROUGH, LONDON, S.E.

A sample supplied free of expense to any medical man on application.

"With hairy springes we the birds betray,
Slight lines of hair surprise the finney prey,
Fair tresses man's imperial race ensnare,
And beauty draws us with a single hair."—Pope.

MRS. LANGTRY'S HAIR PRODUCER.

It is the best known stimulant for the hair; prevents it falling off; creates growth on bald places; restores grey and white hair to its original colour; cleanses the hair and removes all scurf; has no unpleasant effects, and is free from all injurious ingredients. It produces a luxuriant growth, rendering the hair soft, glossy, and wavy, and many ladies and gentlemen moving in the upper circles of society, owe the beauty and luxuriance of their hair to Mrs. Langtry's Hair Producer. It may be applied with advantage to the most beautiful hair, and no lady's or gentleman's toilet table should be without it.

Of all Chemists and Perfumers, 3s. 6d. a bottle, or direct from the Depôt,

330, High Holborn, London, W.C.

BARTON, Manager.

GREENALL'S STEAM WASHER.

HEATED BY GAS.

THE GREAT DOMESTIC LABOUR-SAVING MACHINE.

The Original Patent. Most Efficient, Easiest, and Quickest Washer Made. Accomplishes in Two Hours what is now a Hard Days' Work.

HIGHEST AWARD AT "HEALTHERIES," 1884.
SILVER MEDAL INTERNATIONAL EXHIBITION, 1885.

SHOULD BE USED IN EVERY HOUSEHOLD,

And in all BATHS, LAUNDRIES, BOARDING SCHOOLS, &c. &c.

The Clothes are WASHED IN STEAM, which is generated by GAS or COAL STOVE underneath. Sixteen Shirts, Six Sheets, or Four Hundred Collars washed in ten minutes, and by this system they are THOROUGHLY DISINFECTED.

From Sir ROBERT RAWLINSON, President of the Sanitary Institute of Great Britain, and Vice-President of the "Inventions" Exhibition, South Kensington.

"Lancaster Lodge, West Brompton, London, S.W., 24th December, 1884.

"Mr. John Greenall, Manchester.

"Dear Sir,—The Steam Washer I obtained from you in the autumn, and since then in use at my house, answers admirably in saving time and labour, and in cleansing clothes better than hand washing.

"Yours truly, ROBERT RAWLINSON.

"P.S.—I don't usually give certificates to puff inventions, but your apparatus is so compact and useful, and steam washing and disinfecting so important, that in your case I make an exception."—R. R."

Prices from 3 guineas, copper throughout, carriage paid.

JOHN GREENALL, Manufacturer, 120, Portland St. Manchester.

HEATED BY STOVE.

SCOTT'S EMULSION of PURE COD LIVER OIL

AND HYPOPHOSPHITES OF LIME AND SODA

IS AS PALATABLE AS MILK.

Having all the virtues of the crude Cod-Liver Oil, in addition to the excellent tonic and strengthening properties of the Hypophosphites, it is

THE BEST REMEDY IN EXISTENCE FOR THE CURE OF

Consumption, Scrofulous affections, General Debility, Wasting Diseases, Coughs, Colds, and Bronchitis, and is unequalled for Children suffering from Marasmus and inability to digest ordinary food.

Any Chemist can supply it at 2s. 6d. and 4s. 6d.

IMPORTANT TO HOUSEHOLDS.

CHOLERA, TYPHOID, SMALLPOX,

and other contagious diseases, are mostly spread through infected linen in households and Laundries.

All Linen finished with

A1 LION BRAND RICE STARCH,

which alone is made on new sanitary and antiseptic principles, will effectually resist absorption of contagious germs. Insist on having it from your tradesman, and see that your Laundry uses it.

Offices:—47, LEADENHALL STREET, LONDON, E.C.

Used in London Hospitals and Institutions.

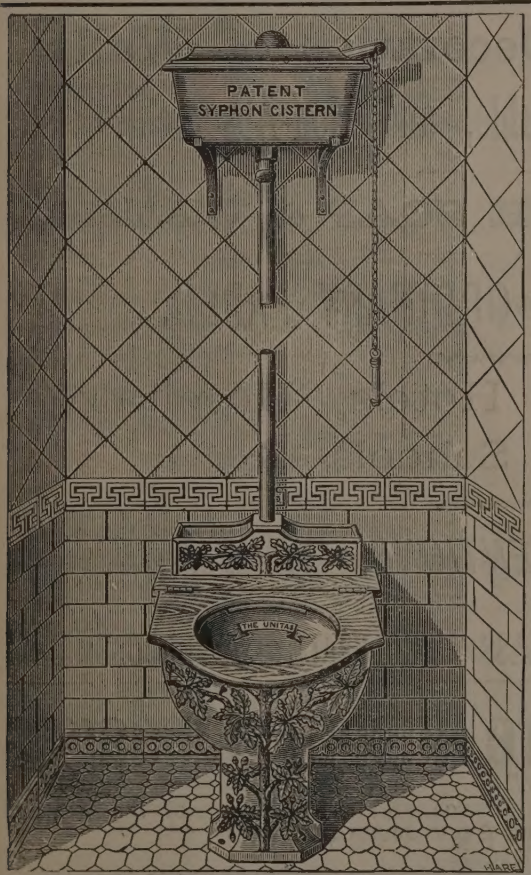
Works by Dr. ANDREW WILSON, F.R.S.E.

CHAPTERS ON EVOLUTION: A Popular History of the Darwinian and Allied Theories of Development. Second Edition. Crown 8vo., cloth extra, with 259 Illustrations, 7s. 6d.

LEAVES FROM A NATURALIST'S NOTE-BOOK. Post 8vo., cloth limp, 2s. 6d.

LEISURE-TIME STUDIES, chiefly Biological. Second Edition. Crown 8vo., cloth extra, with Illustrations, 6s.

London: CHATTO & WINDUS, 214, Piccadilly, W.



THE PERFECTION OF CLEANLINESS, UTILITY, and SIMPLICITY.

"THE UNITAS,"

Combining W.C., BASIN & TRAP, URINAL, & SLOP SINK, has the following special advantages:

UNLIKE ordinary W.C. Basins, it is not enclosed with woodwork, but is fully exposed, so that no filth, nor anything causing offensive smells can accumulate, or escape detection.

ALL joints and connections being in sight, any leakage or other defect can be easily detected and remedied.

No Wood Fittings are required except a hinged seat, which, being raised, the Basin can be used as a Urinal or a Slop Sink, the "wetting" so objectionable in Closets having permanent seats being avoided. Free access can thus be had to all parts of the Basin and Trap, so that everything about the Closet can be easily kept clean.

THE outside of Basin and Trap having Raised Ornamentation, plain or coloured, the appearance presented is pleasing and artistic.

THE Basin and Trap are constructed similar to the "Alliance," which was exhibited with the greatest success at the International Health Exhibition, South Kensington, 1884.

THE flushing arrangements are so perfect, that, with a flush of two gallons of water, it is guaranteed that all the soil and paper will be completely removed from the Basin, and through Trap, the whole of the inside of Basin being washed, and sufficient water left therein to receive soil.

THOMAS TWYFORD,

Sanitary Potter, Bath Street Works, Hanley, Staff.,

Sole Maker of "National," "Alliance," "Unitas" and "Crown" Closet Basins.

ALSO EVERY DESCRIPTION OF

PLUMBERS' AND SANITARY EARTHENWARE.

BONIFACIUS WATER, Pure from the Spring, as supplied to PRINCE BISMARK.

1/6 and 1/- per bottle. | *Medical Press:*—"Extremely beneficial in Gout and Rheumatic Affections, and gives relief in cases of Gravel, Stone, Kidney Diseases, Abdominal and Congestive Affections, Obesity, Hæmorrhoids, &c."

HESSIAN BITTER WATER, THE QUEEN of Aperient Waters. Highly Effervescing, Pleasant, and Refreshing.

1s. 1½d. per bottle.

TO BE HAD OF ALL CHEMISTS, OR OF THE IMPORTERS,

BONIFACIUS COMPANY, 13, RAILWAY APPROACH, LONDON BRIDGE, LONDON, S.E.

good surgeon, who will be able to assure you fully. We can send you address of such, if desired, if you send us stamped addressed envelope.

John George.—The opinions of the print you quote are beneath our notice. You should inquire of the writer of the paragraph what is the "more natural way" of tonics to which he refers? We confess to not in the least understanding either the expression, or how he is able to point to any more excellent tonic than that which, in his ignorance, he despises. His experiences are probably a little limited in the art and practice of medicine. Quinine and iron, alone or combined, are valuable tonics, but do not agree with everyone.

Reconnoissant.—Trust to cure in diet. Eat stewed fruits, whole meal bread. Scott's Midlothian Oat Flour, or Grant's Scotch Oat Flour should also be used. Avoid tea and coffee; and if the constipation returns try the Cascara Cordial again.

Plato.—See and follow advice to "Demos" in Health No. 121. What you name is not a disease, but natural to healthy persons. Bear this in mind, and steer clear of quacks.

Young Mother.—From nine to ten months. Your best plan is to procure Dr. Joll's book on "Nursery Hygiene," or Miss Jex Blake's "Manual of Infancy" (Macmillan), or Dr. Weatherley's "Young Wife's Own Book" (Griffith & Farran), and study what is aid therein about the feeding of infants. Such books you will find very useful in many other ways and emergencies.

Trade Mark— "HEALTH BELT." —Trade Mark.

BY ROYAL LETTERS PATENT.

Harness' Electric Battery Belt.

The simplest, safest, most comfortable, most economical and most reliable adaption of Electricity for curative purposes ever invented—*vide* reports. Invaluable in all cases of Impaired Vitality, Nervous Debility, and the many distressing ailments consequent on defective circulation or sluggish organic action.

Requires no wetting with vinegar or other extraneous acid, and does not injure the most delicate skin. Need only be worn half-an-hour per day. Send for testimonials, or consult Mr. Harness personally (free of charge) at the rooms of

THE MEDICAL BATTERY CO., 52, Oxford St. London, W.

(Corner of Rathbone-place).

"TECTORIUM,"

A New Fabric for the Decoration of Walls,

Is Artistic in Appearance, Durable, and Non-Absorbent.

MAY BE WASHED WITH SOAP & WATER.

ONLY THE PRICE OF AN ORDINARY PAPER.

Especially Suitable for Hotels, Hospitals, Asylums, Public Schools, &c.

MAY BE SEEN AT THE INVENTIONS' EXHIBITION.

CAN BE OBTAINED FROM ANY FIRST-CLASS WHOLESALE WAREHOUSEMAN.

Dr. Henry A. Martin's Pure Rubber Bandages

"GENUINE."

For the Radical Cure of Varicose Veins, Weakness, Ulcers, Eczema, and other Diseases of the Leg, and for Injuries of the Knee and Ankle Joints.

SIZES AND PRICES.

For the Leg, from the Foot to below Knee ... ... No. 1, Thick, 7s. 3d.; No. 1A, Medium, 6s. 0d.; No. 1B, Thin, 4s. 3d.
For the Leg, from the Foot to the Groin ... ... No. 2, Thick, 16s. 6d.; No. 2A, Medium, 13s. 0d.; No. 2B, Thin, 10s. 0d.
For the Knee Joint and Thigh... ... ... No. 5, Thick, 5s.; No. 6, Extra Thick, 7s. 9d.; No. 7, Medium, 7s. 6d.
For the Ankle, Wrist, and Forearm ... ... No. 3, Thick, 3s. 6d.; No. 3A, Thin, 2s. 9d.

DIRECTIONS FOR USE SENT WITH EACH BANDAGE.

Any of the above sent by post on receipt of price and three extra stamps, or can be obtained of all Chemists.

CAUTION.—In order to detect worthless imitations when ordering, specify the Bandage must bear Dr. H. A. MARTIN'S Signature in Carmine Ink, thus:— H. A. Martin

REFUSE ALL OTHERS.

Krohne & Sesemann (Surgical Instrument Makers), 8, Duke St. Manchester Square, London, W.

PRIZE MEDAL, HEALTH EXHIBITION, 1884.

TIDMAN'S SEA SALT

For Producing a Sea Bath in your own Room.

The contents of a 7-lb. box suffice for 22 gallons of water. All who desire health and strength should daily use this unrivalled invigorator.

World-wide renown having induced many imitations, purchasers should see that every package bears the Proprietor's Trade Mark.

SOLD IN BAGS AND BOXES BY ALL CHEMISTS.

ROWLANDS' MACASSAR OIL

has been known for more than 80 years to be the best and safest preserver and beautifier of the hair; it contains no lead, mineral, or poisonous ingredients, and can now also be had in a golden colour, for fair and golden-haired children and persons. Sizes 3s. 6d., 7s., 10s. 6d., & 21s. Sent by Post for 3d. above these prices. Ask for ROWLANDS' MACASSAR OIL, of 20, Hatton-garden, London. Sold everywhere.

Gold Medal, International Health Exhibition.

Wm. Woollams & Co.

ORIGINAL MANUFACTURERS,

ARTISTIC WALL-PAPERS.

Guaranteed free from Arsenic.

SHOWROOMS:

110, HIGH STREET, MANCHESTER SQ., LONDON, W.

Of all Decorators and Contractors.

SOLE ADDRESS.

NOTE TRADE MARK.

THE BEST TONIC.

FER BRAVAIS.

COMPOSITION—Pure Iron, combined with Oxygen without Acid.

ADVANTAGES—Does not Constipate. Does not Stain the Teeth.

INVALUABLE IN ALL CASES OF WEAKNESS.

Lancet says:—"A beautiful and interesting preparation."

British Medical Journal says:—"An eminent London Physician writes to us: 'I have tried it extensively, and given it in cases in which no other form of iron could be taken. It is the best preparation of iron that I have met with.'"

May be obtained of all Chemists in portable Cases, with Drop Measure complete.

FER BRAVAIS.

SUMMER TOURS IN SCOTLAND.

GLASGOW AND THE HIGHLANDS.

(Royal Route viâ Crinan and Caledonian Canals.)

THE NEW ROYAL MAIL STEAMERS Grenadier, Claymore, Columba, Iona, Chevalier, Gondolier, Lochawe, Mountaineer, Pioneer, Glengarry, Clydesdale, Linnet, Clansman, Cavalier, Staffa, Glencoe, Inverary Castle, Islay, Lochiel, Fingal, and Lochness,

Sail during the Season for Kyles of Bute, Ardrishaig, Islay, Oban, Fort William, Inverness, Staffa, Iona, Glencoe, Loch Awe, Tobermory, Portree, Gairloch (Loch Maree), Ullapool, Loch Inver, and Stornoway, affording Tourists an opportunity of visiting the magnificent scenery of Glencoe, the Cuchullin Hills, Loch Coruisk, Loch Maree, and the famed Islands of Staffa and Iona. Official Guide Book, 3d. Illustrated, 6d., cloth gilt, 1s. Time Bill, with Map and Tourists' Fares, free by post from the Owner, DAVID MACBRAYNE, 119, Hope-street, Glasgow.

MORSON'S PEPSINE INDIGESTION.

Preparations of Highly recommended by the Medical Profession for

As Wine in Bottles at 3s., 5s., and 9s.; Lozenges, 2s. 6d. and 4s. 6d.; Globules, 2s., 3s. 6d., and 6s. 6d.; and Powder, as "Medicinal Pepsine," at 2s. 6d. and 4s.; and "Porci," a more concentrated preparation than the Medicinal, at 4s. 6d. each.

SOLD BY ALL CHEMISTS.

The popularity Pepsine has acquired as almost a specific for chronic dyspepsia, indigestion, &c., is due to the fact that it is the nearest possible production of the active principle of the gastric juice of the stomach. Unfortunately, like all other inventions of a like nature, Pepsine has been not slightly discredited by the spurious manufactures that have been issued from time to time; it is therefore necessary as a guarantee of its efficacy to see that each bottle bears the makers' name,

MORSON & SON,

Southampton-row, Russell-square, LONDON.

Papier Preservateur

Of Drapers and Chemists in Ten Yard Rolls, 4s. 6d., or by Parcel Post of Makers.

Can now be had at Retail.

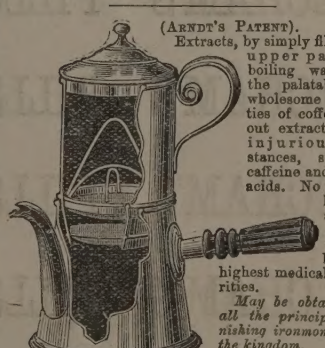
Ladies who wish to be CERTAIN their clothing will not be injured by either MOTH or MILDEW should wrap it in this new chemical paper.

BUILDING PAPER. *Cheap, Light, Strong, Waterproof.* In 10-yd. rolls, 40in. wide, 2d. per yard. Sample roll, Parcel Post, 2s. 6d. Use under slate and tile; temporary roofs; linings for dog kennels, outhouses, &c. *The best cure for damp walls.* For export.

Chemical Papers Co. Lim.

3, Lombard Court, London.

THE "CRITERION" CAFÉTIÈRE.



(ARNDT'S PATENT).

Extracts, by simply filling the upper part with boiling water, all the palatable and wholesome properties of coffee without extracting the injurious substances, such as caffeine and tannic acids. No possible loss of aroma. Recommended by the highest medical authorities.

May be obtained at all the principal furnishing ironmongers' in the kingdom.

Sizes, 2, 4, 6, 8, 12, large cups. Block Tin, 3s. 6d., 4s. 6d., 5s. 6d., 6s. 6d., 7s. 6d. Rolled Nickel, 8s., 12s., 15s., 18s., 21s.

WHOLESALE AGENTS,

THOMAS P. COOK & CO.,

34, Snow Hill, London.

SCHWEITZER'S COCOATINA.

Anti-Dyspeptic Cocoa, or Chocolate Powder.

GUARANTEED PURE SOLUBLE COCOA OF THE FINEST QUALITY.

The FACULTY pronounce it "the most nutritious, perfectly digestible Beverage for BREAKFAST, LUNCHEON, or SUPPER, and invaluable for Invalids and Young Children. *Being without sugar, spice, or other admixture, it suits all palates, keeps for years in all climates, and is four times the strength of Cocoas thickened yet weakened with arrowroot, starch, &c., and in reality cheaper than such mixtures.*

Made instantaneously with boiling water, a Teaspoonful to a Breakfast Cup, costing less than one halfpenny.

COCOATINA possesses remarkable sustaining properties, and is specially adapted for early Breakfasts.

In Air-tight Tins, at 1s. 6d., 3s., 5s. 6d., &c., by Chemists and Grocers.

A WONDERFUL MEDICINE.

Beecham's Pills.

BEECHAM'S PILLS

BEECHAM'S PILLS

BEECHAM'S PILLS

BEECHAM'S PILLS

BEECHAM'S PILLS

BEECHAM'S PILLS

BEECHAM'S PILLS

BEECHAM'S PILLS

BEECHAM'S PILLS

BEECHAM'S PILLS

BEECHAM'S PILLS

BEECHAM'S PILLS

Are admitted by thousands to be worth above a Guinea a Box for Bilious and Nervous Disorders, such as Wind and Pain in the Stomach, Sick Headache, Giddiness, Fullness and Swelling after Meals, Dizziness and Drowsiness, Cold Chills, Flushings of Heat, Loss of Appetite, Shortness of Breath, Costiveness, Scurvy, Blotches on the Skin, Disturbed Sleep, Frightful Dreams, and all Nervous and Trembling Sensations, &c. The first dose will give relief in twenty minutes. This is no fiction, for they have done it in thousands of cases. Every sufferer is earnestly invited to try one box of these Pills, and they will be acknowledged to be

WORTH A GUINEA A BOX.

For Females of all ages these Pills are invaluable, as a few doses of them carry off all gross humours, *open* all obstructions, and bring about all that is required. No Female should be without them. There is no medicine to be found to equal BEECHAM'S PILLS for removing any obstruction or irregularity of the system. If taken according to the directions given with each Box they will soon restore females of all ages to sound and robust health.

For a weak stomach, impaired digestion, and all disorders of the liver they act like magic, and a few doses will be found to work wonders upon the most important organs in the human machine. They strengthen the whole muscular system, restore the long-lost complexion, bring back the keen edge of appetite, and arouse into action, with the rosebud of health, the whole physical energy of the human frame. These are facts admitted by thousands, embracing all classes of society; and one of the best guarantees to the nervous and debilitated is, BEECHAM'S PILLS have the largest sale of any Patent Medicine in the world.

Full directions are given with each box. Sold by all Druggists and Patent Medicine Dealers in the United Kingdom, in Boxes at 1s. 1½d. and 2s. 9d. each.

Printed and Published for the Proprietors by CHARLES WYMAN, at the Printing Office of Wyman & Sons, 74-76, Great Queen-street, London, W.C.